

*English for Chemistry Students*

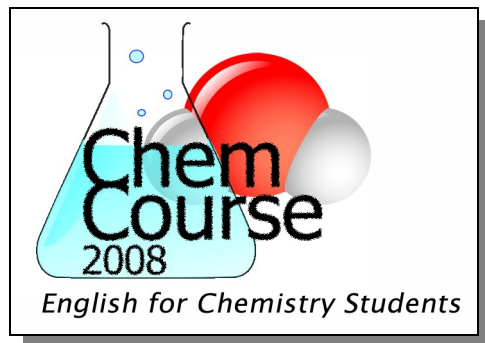
# ChemCourse 2008:

A Teaching Experience in the  
Chemistry Classroom

Olmedo Bula  
Jenaro Díaz-Ducca



# **ChemCourse 2008:** **English for Chemistry Students,** an ESP Course Experience at the University of Costa Rica



<http://www.chemcourseucr.com>

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*"Any fool knows. The point is to understand."*  
- Albert Einstein

San José, Costa Rica  
2008-2012

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## **Resumen**

La presente publicación reúne la investigación previa así como los materiales creados para un curso de inglés con fines específicos (ESP), para estudiantes de la Escuela de Química de la Universidad de Costa Rica. El curso se centró en la práctica y desarrollo de estrategias dentro de las cuatro macro destrezas: habla, escucha, lectura y escritura, tanto para las aplicaciones académicas como profesionales de la Química. El curso se basó además en la implementación de la tecnología para la enseñanza mediante el uso activo de materiales audiovisuales, una página de Internet, y un blog o bitácora donde los estudiantes tuvieron la oportunidad de producir en inglés y recibir retroalimentación por parte de los instructores. - <http://www.chemcourseucr.com>

## **Palabras claves:**

Inglés para Químicos, Inglés para fines específicos, tecnología para la enseñanza, ESP.

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## **Abstract**

This document contains the prior research and consequent materials developed for an English course for chemistry students at the School of Chemistry, at the University of Costa Rica. This ESP course (English for Specific Purposes) focused on the practice and development of strategies in the four macro skills: speaking, listening, reading, and writing, in both the academic and professional fields of chemistry. The course was also based on the implementation of technology for teaching by means of audiovisual materials, an original web page, and a blog, where students had the chance of producing in English and receiving feedback from their instructors. - <http://www.chemcourseucr.com>

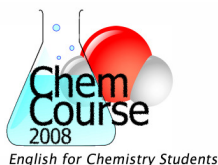
## **Key Words:**

English for Chemists, English for Specific Purposes, technology for teaching, ESP.



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# **CHEMCOURSE 2008:**

## **ENGLISH FOR CHEMISTRY STUDENTS**

### **INTRODUCTION**

ChemCourse 2008: English for Chemistry Students, is an English for Specific Purposes (ESP) course that was imparted at the University of Costa Rica during the second semester of 2008. Since the incorporation of new media and resources is a vital factor in contemporary language teaching and learning, this course was designed to revolve around two main axes: teaching of strategies and usage of technology.

In this sense, the ChemCourse pretends not only to teach English language in an environment related to chemistry, but also, to teach strategies as tools to be used by chemistry students in both English and Spanish, and in both the professional and academic fields. This is another important aspect taken into consideration in our course design: our students' Needs Analysis reflected their interests in acquiring and developing skills in both fields, due to the fact that many of them intended or were currently working and studying at the same time. Some of them also desired to become teachers or researchers in the future.

Technology, on the other hand, was incorporated in an innovative and creative way by means of a Web Site that not only offered general information on the course, but that also worked as a data base where useful links and the course's handouts and other materials could be found and downloaded. In addition, a Blog was created and implemented for computer laboratory practice both inside and outside the classroom. For in-class practice, students could write faux e-mails in order to hold an exchange with other students (written role-play in real time). On the other hand, for out-of-class participation, students were able to post their homework on the Blog (summaries, abstracts, opinions) in order to receive online feedback from the instructors.

Finally, technology and video in particular were used to produce original materials, in this case, instructive videos about chemistry where our students themselves had the chance to demonstrate their progress and accomplishments by the end of the course. All of these materials are available and free for download at these URLs,

<http://www.chemcourseucr.com>

<http://www.youtube.com/user/chemcourseucr>

<http://chemcourseucr.blogspot.com/>

We would like to extend our sincere gratitude to our families, students, professors in both the Schools of Modern Languages and Chemistry, and all the people involved, who helped to turn the ChemCourse 2008 into a successful and innovative ESP experience. The researchers can be contacted at:

[chemcourseucr@yahoo.com](mailto:chemcourseucr@yahoo.com) or [chemcourseucr@gmail.com](mailto:chemcourseucr@gmail.com)

**About this electronic edition:** as a humble effort to defy the inherent nature of many graduation projects and practicum (that is, their inevitable obsolescence), the authors have decided to compile the ChemCourse original materials with the purpose of sharing, under a Creative Commons license, our lesson plans, handouts, and the general course design and reflections. If this electronic book becomes useful for other English teachers, either in the chemistry field or elsewhere, we will be quite satisfied with it and will also be interested in knowing about new applications or adaptations. The terms for this CC license can be found here:

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**A word about Copyright:** Due to the original educational nature of our course, and with the purpose of avoiding copyright issues, some of the authentic materials used in class (brochures, webpage reproductions, etc.), **were not** included in this electronic book. However, many similar materials and realia are easily available elsewhere on the Internet. All other rights belong to their respective owners.

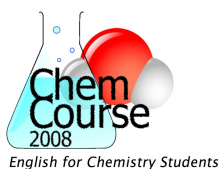
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San José, Costa Rica

January 2009 – September 2012





## Summary of Needs Analysis

### Introduction

In the field of English for Specific Purposes, hereafter referred to as ESP, the main aspect required in order to design an ESP course is a needs analysis. According to Dudley-Evans and St. John (1998), one of the “absolute characteristics” of ESP is that it “is designed to meet specific needs of the learner.” (p. 4). For the present investigation, since we will be working with Chemistry students from the University of Costa Rica in an ESP environment, the first step is a careful needs analysis of our target population.

In this sense, we have tried to incorporate fundamental aspects such as their tasks, wants, and lacks. In order to have a complete view of the population and our job ahead as course designers, we decided to perform a Present Situation Analysis (PSA) by means of language proficiency (diagnostic) tests; a Target Situation Analysis (TSA) by administering questionnaires and interviews; and a Learning Situation Analysis (LSA) based on their language-learning background using questionnaires and interviews. (Dudley-Evans and St. John ,1998, pp.123-124).

This Needs Analysis report deals with a target population of 18 students, all Costa Rican, native speakers of Spanish, and undergraduate students of Chemistry in the University of Costa Rica. Their ages range between 23-36 years. Two of them are students from the Master's Program in Chemistry, and are also teachers and researchers. In general, the group is very homogeneous in terms of language proficiency (66% intermediate, 22% high beginners, and 11% low advanced.) (Note: For practical purposes, hereafter students will be referred as “Ss”).

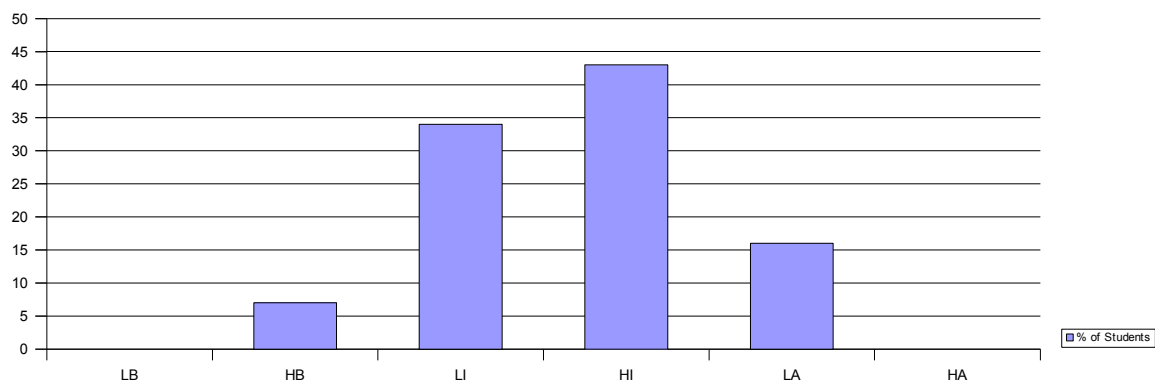
### General Information about the population

Our future students are all related to the field of Chemistry. All but two are students of the third and fourth-year Bachelor's Program in Chemistry at the University of Costa Rica. Two of them are graduate students from the Master's Program in Chemistry and also work as professors and

researchers. They are all Costa Rican, and their ages range between 23 and 36 years. There are 7 women (39%) and 11 men (61%) for a total of 18 students. For diagnostic purposes, all candidates for the course were considered as one single category since all of them are still students of the School. In addition, since our goal is language and not content assessment, all data derived was generalized for both undergraduate and graduate students.

## Proficiency level

Their English proficiency level can be described as predominantly intermediate (77%). These intermediate students are divided into 34% of low intermediate (LI), and 43% of high intermediate (HI) students. In addition, 7% scored as high beginners (HB), and 16% as low advanced (LA). (See Chart 1). The group is very homogeneous, which will facilitate enormously the teaching task, allow more complex activities, and particularly more production from the Ss. This last point was mentioned by most of them as their main want (See corresponding section below).



*Chart 1: Global Proficiency Level (in percentages)*

## Tasks, needs, wants, lacks

**Main tasks:** Ss mentioned reading texts in English (100%); speaking to customers about a product or service (72%); attending conferences, listening, and taking notes (72%); making presentations

(55%); reading labels and catalogues (44%); writing e-mails (22%); writing reports (22%); writing articles (22%); translation of procedures and security sheets (11%); and problem solving (5%).

**Needs:** The needs were determined as a Learning Situation Analysis (LSA). According to Dudley-Evans and St. John (1998), is based on “subjective and felt needs.” (p.124) In general, Ss considered that speaking was the skill they needed to develop the most in order to communicate to customers (83%). They also considered reading books, articles, and manuals (78%); listening to conferences and lectures (72%); and writing laboratory reports (72%) as basic skills.

**Wants:** Ss made clear the fact that they wanted an ESP course centered on speaking and listening as their two most important answers regarding their wants. In order of importance, they listed speaking to customers (94%), listening to lectures and conferences (83%), writing laboratory reports (83%), and reading books, articles, and manuals (72%). As Hutchinson and Waters (1987) suggest, “objective and subjective views of needs (and wants) can, and do, conflict with a consequent de-stabilizing effect on motivation” (p.58). As a result, the course proposal will have to address both needs (TSA) and wants (LSA) simultaneously. Thus, student motivation should be cultivated to address the usually high rates of desertion during ESP course implementation and practice.

**Lacks:** Lacks can also be perceived or objective, and felt or subjective (Dudley-Evans and St. John, 1998, p.123-124). Both types had to be established first: objective lacks based on the PSA, and subjective lacks based on the information provided by the questionnaires. According to the Ss themselves, their main lacks are insufficient fluency (94%); lack of self-confidence when speaking the language (89%); problems with grammar (67%); poor vocabulary (55%); insufficient reading comprehension (55%); limitations when writing, such as grammar or spelling (50%); and poor

listening comprehension (33%). On the other hand, objective lacks were established by the (PSA). Here, lacks are the “gap between [PSA] and [TSA] (Idem.) The PSA (See Section V: Group Profile), carried out by means of the proficiency tests administered, shed light on important weaknesses.

### **Reported strengths, weaknesses, and activities Ss like and dislike**

**Strengths:** As part of our LSA, Ss were asked to rank the four macro skills in terms of how easy they considered them. This would help to determine what skills would also require more attention and reinforcement in order to be successfully developed. From the easiest to the most difficult, they mentioned reading (94%); writing (50%); listening (33%); and speaking (17%). In fact, these numbers reflected what had been determined in the tests (PSA), where speaking and listening were the skills that scored the lowest and thus, that required more attention on the instructors' behalf.

**Weaknesses:** Next, Ss were asked to rank the four macro skills in terms of how difficult they found them. From the most difficult to least difficult, they mentioned speaking (72%); listening (44%); reading (28%); and writing (0%). Once again, these numbers matched what had been established during the tests (PSA).

**Activities Ss like the most:** In order to determine the Ss' preferences in the classroom, they were asked to classify a list of activities. Among the most liked activities they named oral conversations (100%); listening to recorded conversations (83%); working with texts (83%); repeating written conversations (61%); games (61%); role-playing (5,5%); and making presentations (5,5%). These results evidenced an interest in dynamic, communicative activities where oral production, listening, and text discussion (reading, speaking) are expected. Here it is important to add that since Ss considered making presentations a very important task, it will be addressed as one of the main

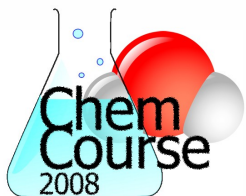


activities for classroom practice.

**Activities Ss like the least:** Complementary to the previous point, knowing which activities Ss do not like is also relevant to lesson planning. Starting with the least liked activity, they mentioned: repeating written conversations (39%); games (33%); listening to recorded conversations (17%); and working with texts (16%). Indeed, these data reflect the Ss' interest in participative, and oral activities over more structured and traditional ones. The only exceptions to this apparent tendency are games, that probably, they consider too child-like for university Ss and scientists. The use of games, however, will not necessarily be discarded as a teaching activity beforehand.

**Ss' expectations for the teachers and the course:** The concept Ss had of how English teachers should behave in the classroom was also taken into consideration. This was an open-ended question, therefore answers were varied and even contradictory. Among their answers the following can be mentioned: teachers should speak in English at all times; teachers should speak both in English and Spanish; teachers should be patient; lessons should be dynamic and participative; teachers should motivate Ss; classes should be student and not teacher-centered; error correction should be immediate and respectful of the Ss; exams should contemplate all skills; teachers should allow shy Ss to develop self-confidence; and lessons and contents should be authentic and adapted to Costa Rica's reality. It is important to add that Ss have high expectations of the teachers and classes in terms of the teacher's mastery of language and different methodologies. Besides, materials should be interesting and the activities should aim at building the Ss' confidence, learning, participation, and motivation.

Regarding Ss' suggestions, only six of them pointed some out, such as focusing on technical vocabulary, developing participative activities, having lessons centered on the Ss; and having a variety of activities in order to avoid class routine and monotony.



# ChemCourse 2008: English for Chemistry Students

Olmedo Bula & Jenaro Díaz-Ducca - – <http://www.chemcourseucr.com> -  2008-2012

English for Chemistry Students

Units and goals	General Objectives	Tasks	Skills/Micro skills	Functions	Strategies	Language structures (grammar)	Vocabulary and useful expressions	Time
<b>Unit #1:</b> <b>"How can I help you?"</b>  <b>Goal:</b> In the Chemistry field, SWBAT:  <i>Engage in formal conversations with customers in order to exchange information about products and services.</i>	1a- Introduce themselves to a provider/customer on the telephone.  1b- Use the appropriate vocabulary and expressions in order to exchange professional information.  1c. Apply different strategies when talking to customers.  1d- Use the appropriate register for formal conversations.	1. Answering a customer's call following a pre-established protocol with appropriate manners  2. Describing products and services to customers  3. Setting up appointments to define sales terms  4. Explaining a procedure to a customer  5. Final task (Role-play): Talking to customers on the phone, answering their questions, and setting an appointment (taped)	Speaking  Pronunciation Negotiation Agenda management	- Greeting - Giving information / persuading - Answering and asking questions - Asking for clarification - Checking for understanding - Expressing agreement / disagreement - Explaining procedures - Making appointments - Giving dates and schedules - Using appropriate register (formal)	False repetition questions Pauses Formulaic expressions Asking for clarification Small talk Compensation Negotiation of meaning	-Greetings -Numbers -Prices -Simple present - Wh- and Y/N- questions -Affirmative, negative forms -Passive voice -Conditionals -Future with "will" - Present perfect - Simple past -Numbers, dates	Good morning, etc. Please, I'd appreciate if you... Do you mean...? Pardon me...? Certainly, of course, etc. I'm sorry, excuse me, etc. Is this correct? Do you agree with me? Is that right? First, second, then, finally, etc. Your order will arrive on... Topic-specific vocabulary	T #1 and T#2: 1 week  T #3-T#5: 1 week each

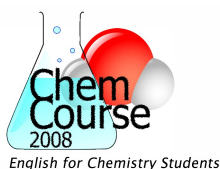
Units and goals	General Objectives	Tasks	Skills/Micro skills	Functions (for class discussion)	Strategies	Language structures (grammar)	Vocabulary and useful expressions	Time
<p><b>Unit #2: "Dealing with scientific literature"</b></p> <p><b>Goal:</b> In the Chemistry field, SWBAT:</p> <p><i>Read specialized literature in order to use it in their own projects.</i></p>	<p>2a- Extract main ideas from specialized literature.</p> <p>2b- Re-phrase main ideas in their own words.</p> <p>2c- Apply skills in order to guess the meaning of words and expressions from context.</p> <p>2d- Discuss the articles' main ideas with colleagues in an oral way.</p> <p>2e-Use correct academical criteria to quote and paraphrase other people's ideas without committing plagiarism.</p>	<p>1. Reading and selecting articles applying both top-down and bottom-up approaches</p> <p>2. Interpreting new vocabulary from context.</p> <p>3. Extracting, summarizing and explaining main ideas to colleagues</p> <p>4. Writing references in academic papers.</p> <p>5. Final task (optional): "Selecting sources and writing a bibliography for your essay" (to be presented later)</p>	<p>Reading</p> <p>Vocabulary</p> <p>Grammar</p> <p>Using dictionaries</p> <p>Identifying doubts and problems (meta-cognitive skills)</p> <p>Formulating questions</p>	<p>- Giving information / persuading</p> <p>- Answering and asking questions</p> <p>- Asking for clarification</p> <p>- Checking for understanding</p> <p>- Expressing agreement / disagreement</p>	<p>Sampling</p> <p>Skimming</p> <p>Scanning</p> <p>Getting the gist</p> <p>Extracting main ideas</p> <p>Getting meaning from context</p> <p>Formulating hypotheses</p> <p>Summarizing</p> <p>Re-phrasing in own words</p> <p>Spotting and interpreting connectors</p>	<p>- Wh- and Y/N- questions</p> <p>-Passive voice</p> <p>-Conditionals</p> <p>-Numbers, dates</p> <p>- Sequence vocabulary</p> <p>-Simple past</p>	<p>In other words, this means, i.e., in short, etc. First, second, therefore, then, finally, etc. Wh- / Y/N questions Numbers, dates Quotes Topic-specific vocabulary</p>	<p>T #1- T#3: 1 week each</p> <p>T #4 and T#5: 1 week</p>

Units and goals	General Objectives	Tasks	Skills/Micro skills	Functions (for class discussion)	Strategies	Language structures (grammar)	Vocabulary and useful expressions	Time
<b>Unit #3:</b> <b>"At the conference"</b>  <b>Goal:</b> In the Chemistry field, SWBAT:  <i>1-Apply active-listening strategies in order to understand lectures in conferences or classes.</i>  <i>2- Comment the lecturer's ideas with a colleague.</i>	3a- Take notes during a lecture.  3b- Summarize the lecturer's main ideas.  3c- Re-phrase the lecturer's main ideas in their own words.  3d- Explain the lecturer's ideas to colleagues  3e- Comment on the lecturer's ideas by expressing a professional opinion	1. Taking down notes during a lecture  2. Asking questions of a lecturer in order to clarify ideas  3. Summarizing, re-stating main ideas, and reporting them orally to a colleague  4. Final task (Role-play): Attending a real lecture (taped-results can be exhibited)	Listening  Asking and answering questions Inferencing Predicting Monitoring Asking for clarification Summarizing Greeting Exchanging personal information Expressing a professional opinion	- Giving information / persuading - Answering and asking questions - Asking for clarification - Checking for understanding - Expressing agreement / disagreement	Asking for clarification Getting the gist Look for key words Taking notes  Use nonverbal cues to meaning Predict the speaker's purpose Associate information with one's knowledge	- Wh- and Y/N- questions -Numbers, dates	Good morning, etc. Do you mean...? Pardon me...? Certainly, of course, etc. I'm sorry, excuse me, etc. Register-related vocabulary Topic-specific vocabulary	1 week each task



Units and goals	General Objectives	Tasks	Skills/Micro skills	Functions	Strategies	Language structures (grammar)	Vocabulary and useful expressions	Time
<b>Unit #4:</b> <b>"At the showcase"</b>  <b>Goal:</b> In the Chemistry field, SWBAT:  <i>1- Make short oral presentations in conferences about products and services.</i>  <i>2- Use small talk appropriately to engage the audience's attention before and after the presentations.</i>  <i>3- Exchange call cards with the audience in order to provide contact information.</i>	4a- Use the appropriate strategies to begin and finish a presentation.  4b- Use the appropriate strategies to list and express main ideas.  4c- Use the appropriate strategies to rephrase their ideas.  4d- Use other strategies such as greeting, changing intonation, jokes, and irony to keep the audience's interest.	1. Giving a presentation following the different stages for an oral presentation about a product or process: greeting, describing, summarizing, and closing  2. Interacting with the audience in order to determine their level of comprehension  3. Final task (Role-play): Presenting a product at the exposition (taped)	Speaking  Pronunciation Compensation Correction Giving contact information	-Getting attention -Greeting -Describing -Answering questions -Re-phrasing -Summarizing -Persuading -Using appropriate register (formal)	Fillers Pauses Formulaic expressions Rephrase Self-correction Compensation Negotiation of meaning	-Simple present - Demonstrative s -Prepositions - Wh- and Y/N- questions -Affirmative, negative forms -Passive voice -Conditionals -Future with "will" -Shapes, colours, sizes -Numbers, dates	Good morning, etc. Certainly, of course, etc. I'm sorry, excuse me, etc. First, second, then, finally, etc. This is... As you can see... This is used to... Take in to account that... Topic-specific vocabulary	1 week each task

Units and goals	General Objectives	Tasks	Skills/Micro skills	Functions	Strategies	Language structures (grammar)	Vocabulary and useful expressions	Time
<b>Unit #5:</b> <b>"Keeping in touch"</b>  <b>(optional)</b>  <b>Goal:</b> In the Chemistry field, SWBAT:  <i>Write electronic messages to colleagues and customers regarding professional interests, products, and services.</i>	<p>5a- Use the appropriate vocabulary and expressions in order to exchange information about products, services, and professional interests.</p> <p>5b- Use the appropriate register for formal electronic messages.</p> <p>5c- Use the appropriate expressions to begin and end a written electronic message.</p>	<p>1. Writing e-mails to colleagues asking for information about products, services, and professional interests</p> <p>2. Answering customers' e-mails about products and services</p> <p>3. Final task (Role-play): Writing and replying to e-mails from customers and colleagues (laboratory session taped - results can be exhibited)</p>	<p>Writing</p> <p>Vocabulary</p>	<p>- Greeting</p> <p>- Giving information / persuading</p> <p>- Answering and asking questions</p> <p>- Asking for clarification</p> <p>- Checking for understanding</p> <p>- Expressing agreement / disagreement</p> <p>- Explaining procedures</p> <p>- Giving dates and schedules</p> <p>- Using appropriate register (formal)</p> <p>-Arranging telephone conferences</p>	<p>Simplification</p> <p>Formulaic expressions</p>	<p>-Simple present</p> <p>- Wh- and Y/N- questions</p> <p>-Affirmative, negative forms</p> <p>-Passive voice</p> <p>-Conditionals</p> <p>-Future with "will"</p> <p>- Present perfect</p> <p>- Simple past</p> <p>-Numbers, dates</p>	<p>Good morning, etc.</p> <p>Please...</p> <p>I'd appreciate if you...</p> <p>Do you mean...?</p> <p>Pardon me...?</p> <p>Certainly, of course, etc.</p> <p>I'm sorry, excuse me, etc.</p> <p>Is this correct?</p> <p>Do you agree with me? Is that right?</p> <p>First, second, then, finally, etc.</p> <p>Your order will arrive on...</p> <p>Mr. Ms. M.</p> <p>Please consider...</p> <p>It is with great pride that...</p> <p>Topic-specific vocabulary</p>	<p>2 weeks in total</p>



## Teaching Methodology for the ChemCourse 2008

In spite of the different existing approaches to language teaching, English for Specific Purposes (ESP), which stands currently as one of the most important trends in English Language Teaching (ELT), does not imply a particular teaching methodology. Indeed, part of the demands that the 21<sup>st</sup>. century imposes on language teachers are flexibility and richness of methodology. In this sense, although for the ChemCourse 2008 the Task-Based Instruction (TBI) approach will be the main methodological concept applied, the teaching methodology will not be restricted to TBI's tenets only.

As Hutchinson and Waters have stated it, “there is nothing specific about ESP methodology. The principles which underlie good ESP methodology are the same as those that underlie sound ELT methodology in general.” (2001) In this particular case, basically a skills-based, task-based approach will be developed, combined with some elements of general ELT approaches in order to provide a rather eclectic methodology. The following are the main tenets for the ChemCourse 2008's methodology:

1. The teacher is just an assistant to learning (facilitator)
2. Students learn cooperatively and autonomously
3. Motivation and other socioaffective variables are crucial elements in the classroom
4. Students and teachers learn from each other
5. The learning experience must be flexible and varied

### **1. The teacher is just an assistant to learning (facilitator)**

The teacher's role as learning facilitator in the classroom will maintain a flowing communication with the students (Rhodes and Bellamy, 1999), working from the background, and not lecturing as conservative teaching styles tend to do. Students learn by means of their effort and interest, based on the learning environment created in the classroom. This environment is originally set by the teacher, but it depends on the students to take advantage of it.

### **2. Students learn cooperatively and autonomously**

Because learning is a cooperative process between teacher and students, and between the

students themselves, autonomy and responsibility need to be developed in the classroom. Students are agents of their own learning (Von Glaserfeld, 1989). Both teaching and learning account for a 50% of the process each. In other words, no matter how hard an instructor may try to help students to learn, if they do not collaborate and put their heads and heart into it, learning is clearly doomed. In Cook's words (2001), "Poor students are those who depend most on the teacher and are least able to fend for themselves. The students must be encouraged to develop independence inside and outside the classroom." Thus, failure to learn cannot be blamed exclusively on the instructor but also on the students' responsibility for their own learning.

### **3. Motivation and other socioaffective variables are crucial elements in the classroom**

According to Cook (2001), "motivation is probably the interest that something generates in the students... [It has] been used to refer to long-term stable attitudes in the students' minds." Gardner (1972, 1985) describes two types of motivation: integrative (interest in the culture itself,) or instrumental (L2 as a means to other ends such as a finding a job, or a scholarship.) Independently of what kind of motivation students manifest, the teacher's role is to generate and maintain the learners' motivation for as long as possible. Motivation is "strongly dependent on learner's confidence in his or her potential for learning." (Von Glaserfeld, 1989.) This means the teacher must create an environment of tolerance, respect, and confidence in the classroom.

### **4. Students and teachers learn from each other**

The teacher should and must draw on the students' knowledge, keeping in mind that they are the experts in the carrier content. This helps to "generate genuine communication in the classroom" (Rhodes and Bellamy, 1999.) Within the context of Constructivism, learning is an active, social process. "Learners compare their vision of the truth with that of the instructor and fellow students in order to get a new, socially tested version of the truth." (Kukla, 2000). Thus, out of this continuous process of comparison and contrast, knowledge is constructed.

### **5. The learning experience must be flexible and varied**

Once again, teachers and students are responsible for learning and for the course's success. In the case of the ChemCourse 2008, "since this is an ESP course, experience, knowledge, participation, contributions, and the motivation students may have will play a key role in order to enrich classes and the learning process." (ChemCourse 2008's webpage.) Furthermore, teachers, activities, tasks, and materials must be flexible. In the classroom this means adapting, improving, revising, and creating materials and activities that can be not only meaningful to the learners but also engaging and stimulating enough.



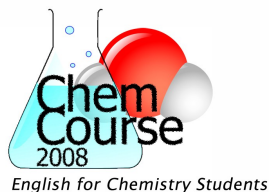


Olmedo Bula & Jenaro Díaz-Ducca - <http://www.chemcourseucr.com> -



2008-2012

## Lesson Plan #0101



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com)

**Unit # 1 Unit “How can I help you?”**

**Goal:** SWBAT *engage in formal conversations with customers in order to exchange information about products and services.*

**Task 1:** Answering (beginning) a call following a pre-established protocol (Customer Service for a chemical company)

**Date:** Aug. 11<sup>th</sup>, 2008

Student teacher (T): Jenaro A. Díaz-Ducca  
Assistant Teacher (AT): Olmedo Bula

### Specific Objectives: SWBAT

1. Develop a sense of learning community by getting to know their classmate's names and interests. (socio-affective)
2. Express their interests to their classmates by means of short interviews.
3. Express in their own words the importance of Customer Service and phone skills in the Chemistry-related industry based on audiovisual input.
4. Apply negotiation of meaning in order to come to an agreement during group work. (cognitive, socio-affective)

Specific Objective	Procedures	Language	Strategies	Skills	Time
#1, #2	<b>Activity 1:</b> (Introduction to the course) Ts will check the Ss' final list to make sure all Ss are present. Ts will issue “ <b>Perfil del Curso</b> ” handout to Ss and will proceed to read it with them. Ss will be allowed to ask any questions they may have in order for Ts to make sure that Ss understand all points.				5-10 m
	<b>Activity 2:</b> (Ice breaker) Ss will write their names on a slip of paper that will be collected by Ts. Then, each Ss and AT will get one name back (if someone gets his/her own name he/she must return the slip in order to get another person's.) Ts will issue <b>Handout 0101a</b> , which they will read with Ss. After all Ss' questions are answered, Ss will proceed to interview the	-Greetings - Wh- and Y/N-questions - Affirmative vrs. negative structures “Good	Introductions Compensation Negotiation of meaning Asking for clarification	Writing, reading, speaking, listening	15 m

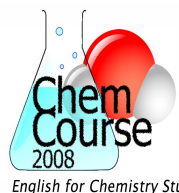
	classmate whose name they received using <b>Handout 0101b</b> to write the information required (this includes AT). T will move around monitoring and answering other questions.	<i>evening/Where do you work?/What do you at work?</i>			
#1,#2	<b>Activity 3:</b> AT will introduce the first S to the rest of the class, in order to model what the rest of Ss will do afterwards. Then, the first introduced S will introduce the second S and so on until everyone has introduced somebody. In the meanwhile, T will collect <b>Handout 0101b</b> from AT and on its back will write observations about the first S's production while he/she introduces second S, in a chain sequence. Some points to take into consideration by T are grammar mistakes, problematic phonemes, and incorrect intonation.	<i>This is.../He likes to.../She wants to..."</i>	Introductions Compensation Negotiation of meaning	Speaking, listening, reading	30 m
#3	<b>Activity 4:</b> (Warm-up) T will ask Ss to discuss in groups of trios the importance of Customer Services and phone skills in the Chemistry-related business to activate schemata. Then, each trio will elicit their ideas, which the T and AT will write on the board.	<ul style="list-style-type: none"> <li>– <i>I think that...</i></li> <li>– <i>Customer Service is important because</i></li> </ul>	Schemata activation Negotiation of meaning Asking for clarification	Speaking, listening	5 m
#4	<b>Activity 5:</b> (Task) Then, Ss will watch the short video “ <i>Why Good Customer Service Is Important</i> ” (two times.) Afterwards, T will ask Ss to comment in their trios what the video depicted and to decide if they agree or disagree with it. Each trio will present the reasons why they agree or disagree along with any extra ideas they may consider relevant about CS. While this is taking place, both T and AT will jot down pronunciation and grammar mistakes they find relevant to the task.	<i>Pardon me...?</i> <i>I need to... / You need to...Certainly, of course/</i> <i>I'm sorry, excuse me/</i> <i>Do you agree with me?</i> -Topic-specific vocabulary	Compensation Negotiation of meaning Asking for clarification Using formulaic expressions	Speaking, listening	25 m 5-10 m 5-10 m

#1,#4	<p><b>Activity 6:</b> (Post-task) In a general discussion, Ss and T comment on the problems they encountered in the tasks in terms of listening or speaking.</p> <p><b>Activity 7:</b> (Post-task) T will write down on the board the pronunciation and grammar mistakes for a feedback session based on self and peer correction. If necessary, T will provide extra feedback.</p>	<ul style="list-style-type: none"> <li>– <i>This is difficult because...</i></li> <li>– <i>This is very important...</i></li> <li>- Same as above</li> </ul>	<p>Negotiation of meaning Asking for clarification</p> <p>Asking for clarification Repetition</p>	<p>Speaking, listening</p> <p>Reading, listening, speaking, Pronunciation</p>	
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### Observations:

- As usual, topics are reviewed in oral and written form using the blackboard. Examples are elicited by the students when necessary
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modelled to the students (with their assistance if necessary).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.

## Lesson Plan # 0102



**Http://www.chemcourseucr.com**  
**Unit # 1 Unit "How can I help you?"**

**Goal:** SWBAT *engage in formal conversations with customers in order to exchange information about products and services.*

**Task 1:** Answering (beginning) a call following a pre-established protocol (Customer Service for a chemical company)  
**Date:** Aug. 13<sup>th</sup>, 2008

Student teacher: Jenaro A. Díaz-Ducca  
 Assistant: Olmedo Bula

### Specific Objectives: SWBAT

1. Use greetings and introductions (identifications) in order to answer a customer's call politely in the context of Customer Service.
2. Use questions in order to inquire about the customer's needs and purpose of the call in a polite way.
3. Apply spelling as a professional strategy by using initials and model words to avoid misunderstandings.
4. Use polite expressions in order to convey a professional attitude when talking to customers on the phone.
5. Comment orally in order to explain the difficulties encountered during the in-class task development (metacognitive).

Specific Objective	Procedures	Language	Strategies	Skills	Time
#1	<b>Activity 1:</b> (Warm-up) Ss are shown a picture of a girl talking on the phone to activate schemata. In pairs, Ss discuss the steps in order to begin to answer a call from a customer. They elicit useful phrases that T writes on the board.	-Greetings -Simple present - Wh- and Y/N-questions -Affirmative, negative forms	Schemata activation Recalling Formulaic expressions	Speaking, Listening, reading	6 m
#1,#2	<b>Activity 2:</b> (Pre-task)Ss are shown the first 1:30 minutes of "JJ's video" and are asked to note down the things he did and didn't do. In pairs, they comment these questions to be written on the board: "Did JJ answer the phone professionally? What	<i>Good morning, etc. Please, I'd appreciate if you... Do you mean...? Pardon me...?</i>	Compensation Negotiation of meaning Asking for clarification	Listening, writing	10 m

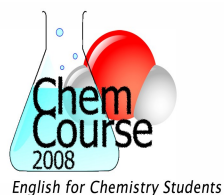
#1,#2	<p>did he do? What didn't he do?" On Handout #0102a (framework A) they write individually what JJ did. In pairs, Ss write the correct steps that JJ should have followed, in Handout #0102a (framework B)</p> <p><b>Activity 3:</b> (Pre-task)Ss watch the next 5 minutes of the video to verify their impressions according to what Jenny says to JJ.</p>	<p><i>Certainly, of course</i>  <i>I'm sorry, excuse me</i>  <i>Is this correct? Do you agree with me?</i>  <i>Is that right?</i>  <i>First, second, then, finally, etc.</i>  <i>Your order will arrive on...</i>  Topic-specific vocabulary</p>	<p>Compensation Negotiation of meaning</p>	<p>Listening</p>	<p>7 m</p>
#1,#2	<p><b>Activity 4:</b> (Pre-task)Ss check how many points they got correctly and add other aspects that they may have missed (based on what was mentioned by Jenny.)</p>	<p>Topic-specific vocabulary</p>	<p>Compensation Negotiation of meaning</p>	<p>Reading, speaking, listening</p>	<p>6 m</p>
#3	<p><b>Activity 5:</b> (Pre-task) Ss are given Handout #0102b with letters of the alphabet. Names of the letters are reviewed. In groups of three, Ss are asked to supply an example of an English name beginning with each letter.</p>	<p><i>Pardon me...?</i>  <i>Certainly, of course, etc.</i>  <i>I'm sorry, excuse me</i>  - Same as above</p>	<p>Compensation Negotiation of meaning Asking for clarification</p>	<p>Reading, listening, speaking, Pronunciation</p>	<p>15 m</p>
#3	<p><b>Activity 6:</b> (Pre-task)Examples are shared in a general discussion with the class. T checks and explains that using common, everyday names is the best way to avoid confusion and misspelling: "B as in Bob; C as in Charlie, T as in Tom." In addition, culture-awareness and appropriateness is also important.</p>	<p>"My name is..."  "P as in Paul..."</p>	<p>Compensation Negotiation of meaning Asking for clarification Using formulaic expressions</p>	<p>Reading, listening, speaking, Pronunciation</p>	<p>10 m</p>
#3	<p><b>Activity 7:</b> (Mini-task) Using the fictitious names provided in Handout #0102c, Ss practice spelling them to their classmates, who need to write them down (in pairs.)</p>	<p>- Same as above</p>	<p>Compensation Negotiation of meaning Asking for</p>	<p>Reading, listening, speaking, writing</p>	<p>15 m</p>

#3	<b>Activity 8:</b> (Pre-task) Ss compare the names written with their partners to verify if they heard them correctly.	<ul style="list-style-type: none"> <li>- <i>No, this is wrong...</i></li> <li>- <i>I mean...</i></li> </ul>	clarification	Pronunciation	6 m
#1, #2, #3, #4	<b>Activity 9:</b> (Task: Inner-outer circle) Ss practice taking turns as customer and operator. They follow the basic phone script provided in Handout #0102d and the names used in Handout #0102c. Helpful and polite expressions are reviewed for meaning and pronunciation.	<ul style="list-style-type: none"> <li>- <i>Good morning, this is...</i></li> <li>- <i>How do you spell that?</i></li> </ul>	Compensation Negotiation of meaning Asking for clarification	Reading, listening, speaking, Pronunciation	20 m
#1, #2, #3, #4	<b>Activity 10:</b> (Task) Two pairs of Ss present their task to the rest of the class. Ss are asked to pay attention and note down their suggestions for their classmates: <i>“What would you do differently? Did they omit anything? What would you add?”</i>	<ul style="list-style-type: none"> <li>- <i>How can I help you?</i></li> <li>- <i>I think they have to say...</i></li> </ul>	Compensation Negotiation of meaning Asking for clarification	Reading, listening, speaking, Pronunciation	10 m
#5	<b>Activity 11:</b> (Post-task) In a general discussion, Ss and T comment on the problems they encountered in the tasks, and the importance of politeness in the phone. Possible grammar or pronunciation questions are addressed (T can use words or phrases he took from Ss during Task).	<ul style="list-style-type: none"> <li>- <i>This is difficult because...</i></li> <li>- <i>This is very important...</i></li> </ul>	Negotiation of meaning Asking for clarification	Listening, speaking	10 m

### Observations:

- As usual, topics are reviewed in oral and written form using the blackboard. Examples are elicited by the students when necessary
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modelled to the students (with their assistance if necessary).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.

# Lesson Plan # 0103



## ChemCourse 2008 Unit # 1 "How can I help you?"

**Goal:** SWBAT *engage in formal conversations with customers in order to exchange information about products and services over the phone.*

## Task 2: Describing products and services (prices / existence)

**Date:** Aug. 18<sup>th</sup>, 2008

Student teacher: Olmedo Bula  
Assistant: Jenaro A. Díaz-Ducca

### Specific Objectives: SWBAT

1. Ask and answer questions regarding existence of stock supplies.
2. Give information about prices using numbers and quantities both in US dollars and colones based on a catalogue.
3. Ask for clarification / repetition in a polite way when the student has problems understanding.
4. Comment orally in order to explain the difficulties encountered during the task (metacognitive).
5. Discriminate and pronounce correctly rising and falling intonation in y/n questions and information questions.
6. Ask for confirmation in a polite way.

Procedures	Language	Strategies	Skills	Time
<b>Activity 1:</b> (Warm-up) Ss watch the short video "Using a Customer's Name" to activate schemata. In pairs, Ss summarize the steps that the host mentioned. Ss report back to the class. T and Ss talk about the importance of using the customer's name over the phone.	-Customer's name -It's important...		Speaking, listening and writing	10 m
<b>Activity 2:</b> (Pre-task) T writes down different figures on the board: 5, 10, 27, 245, 587, 953, 1019, 1657, 1998, 2008, 2500, 5874, 8987, 10651, 20369, 50578, 100,001. T lets Ss look at them for a minute and then starts asking the class how these figures are read. T and Ss go over these numbers. T makes sure Ss pronounce correctly problematic words such as "thousand, hundred, 19 vrs. 90, 15 vrs. 50" and structures such as "two thousand-five hundred vrs. Twenty-five hundred" The same process is done to review prices. T writes on the	- Numbers - Prices 25000 956 20258 20		Pronunciation	10 m
Procedures	Language	Strategies	Skills	Time



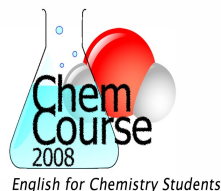
<p>2,500.00, etc.</p> <p><b>Activity 3:</b> With the aid of handout # 0103a, T and Ss go over and review useful expressions to ask for repetition, existence of stock supplies, and confirmation.</p> <p><b>Activity 4:</b> With the aid of a recording, Ss listen to a similar task. Ss pay close attention to the useful expressions. Ss note down useful words and phrases.</p> <p><b>Activity 5:</b> (Task-role play) With the aid of handout # 0103b, Ss are assigned different roles. SA plays the role of a customer and SB plays the role of the phone operator. Customer calls operator and asks for five products s/he needs. Using the Cambrex Catalogue, operator answers customer’s questions. Ss are issued the corresponding slips of paper with instructions on the task. Ss read them, and T makes sure Ss understand their roles. T demonstrates and example with one student to verify understanding. Ss perform the task (back to back). T monitors performance, use of structures, and answers questions Ss may have. Ss switch roles to perform the task one more time. Ss report to the class. T asks for two groups who are willing to present their task to their classmates. Ss are asked to pay attention and note down their suggestions for their classmates.</p> <p><b>Activity 6:</b> (Raising awareness) In a general discussion, Ss and T comment on the performance of the conversations. T asks questions like: “What would you do differently? Did they omit anything? What would you add?” Ss and T also comment on the problems they encountered in the task and the importance of politeness in the phone.</p> <p><b>Activity 7:</b> (Language focus-raising awareness) T writes two sets of questions on the board:</p> <p>A-Can you repeat that? Do you sell Zirconium? Could you repeat that? B-What is the price of two gallons of Zirconium? How do you spell that?</p>	I’m sorry. I didn’t hear you. Can you repeat that? I’m looking for... I need... It costs... The price is... -Greetings -Simple present - Wh- and Y/N questions - Affirmative vrs. negative structures Good morning, etc. Please, I'd appreciate if you... Do you mean...? I need to... / You need to... Certainly, of course, etc. I'm sorry, excuse me, etc. Is this correct? Is that right? Yes, we have. I'm sorry, we don't have any... - Topic-specific vocabulary	Using formulaic expressions (repetition, existence of stock supplies, and confirmation)  Compensation  Negotiation of meaning  Pauses	Listening and reading  Listening and writing  Speaking and listening     Speaking and listening   Reading, listening and speaking	10 m  10 m  30 m          10 m   20 m
<b>Procedures</b>	<b>Language</b>	<b>Strategies</b>	<b>Skills</b>	<b>Time</b>

<p>(Pronunciation) T pronounces these set of questions two times paying close attention to the intonation patterns (rising/falling). T asks Ss if they notice the different patterns. T encourages Ss to come up with an answer. Then T explains the proper intonation of these sentences. T will use some arrows (↗ / ↘) to establish a notation system to represent these intonation patterns in an easy and practical way. T and Ss do individual and choral repetition.</p> <p>T reads a set of questions. T asks Ss to pay close attention to the intonation patterns. Ss use their hands to show the correct intonation patterns (↗ / ↘).</p> <p>(Grammar) T asks Ss if they can establish a rule for these intonation patterns. T encourages Ss to come up with an answer. Then T explains the rule for rising and falling intonation.</p> <p>(Optional) If necessary, T chooses two Ss randomly to role-play the conversation paying attention to these linguistic features.</p> <p><b>Activity 8:</b> Ss watch the short video “<i>ABC of customer service</i>”. T asks Ss: “How does this apply to the task we just carried out?” In trios, Ss discuss and note down their ideas. Then, Ss offer their answers and T writes them on the board.</p>	<p>- Information questions - ↗ / ↘</p> <p>It’s important to... Remember to...</p>		<p>Pronunciation</p> <p>Reading, listening and speaking speaking</p>	<p>10 m</p>
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### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained. This is followed by direct addressing: “Do you have any questions?”
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.

## Lesson Plan # 0104



**Http://www.chemcourseucr.com**  
**Unit # 1 “How can I help you?”**

**Goal:** SWBAT *engage in formal conversations with customers in order to exchange information about products and services over the phone.*

**Task 2: Describing products and services (features, characteristics)**

**Date:** Aug. 20<sup>th</sup>, 2008

**Teacher (T):** Jenaro A. Díaz-Ducca  
**Assistant Teacher (AT):** Olmedo Bula

### Specific Objectives: SWBAT

1. Ask and answer open-ended questions (general questions) in order to determine the customer's needs in the context of Customer Service.
2. Ask and answer close-ended questions (specific questions) in order to select the laboratory equipment that will meet the customer's needs in the context of Customer Service, based on a catalogue.
3. Provide information about laboratory equipment in terms of dimensions, units of capacity, and other specific features.
4. Ask for clarification / repetition in a polite way when the student has problems understanding (negotiation of meaning).
5. Use the expression “*I don't know*” to admit ignorance about a specific topic as a correct and polite strategy in the context of Customer Service.
6. Comment orally in order to explain the difficulties encountered during the in-class task development (metacognitive).

Specific Objective	Procedures	Language	Strategies	Skills	Time
	<p><b>Activity 1:</b> (Warm-up) T asks Ss to work in trios and to brainstorm about the different kinds of questions that can be used in order to obtain general and specific information. After that, each group presents their ideas, which are written on the board by T.</p> <p><b>Activity 2:</b> Ss will watch the short videos “<i>How to Ask Close-Ended Questions</i>” and “<i>How to Ask Open-Ended Questions</i>” twice each. In their trios, Ss summarize the points that the host mentioned and contrast them with the ideas that were written on the board previously. As a final reflection, T and Ss discuss the</p>	<p><i>I think that...</i>  <i>It's important to...</i></p> <p><i>She said that...</i>  <i>We can do this...</i>  <i>This is important because...</i></p>	<p>Compensation  Negotiation of meaning</p> <p>Compensation  Negotiation of meaning</p>	<p>Speaking,  listening and  writing</p> <p>Speaking,  listening and  writing  Pronunciation</p>	<p>5+5 m</p> <p>20 m</p>

#1, #2	importance of using this kind of questions over the phone in a Customer Service context.				
	<b>Activity 3:</b> (Pre-task) T issues examples of laboratory equipment brochures and asks newly-formed trios to formulate 2 examples of open-ended questions and 2 examples of close-ended questions that can be asked by either the customer or the chemical supplier phone representative in a CS situation. Each trio gives their examples and T writes them on the board. Ss' questions about vocabulary pronunciation (dimensions, units of capacity and other features) are addressed.	<i>What kind of equipment do you need/sell?</i> <i>Do you have any analytical balances?</i>	Compensation Negotiation of meaning Formulation of questions	Speaking, listening and writing Pronunciation	20 m
#2	<b>Activity 4:</b> With the aid of handout # 0103a (from previous lesson, some extra copies may be necessary), T and Ss review useful expressions to ask for repetition and questions about availability of supplies. Then, T issues handout #0104a (I- Units of measurement) in order to check the pronunciation of the main units of measurement used to describe equipment. This is the Language Focus for this lesson.	<i>How big/small is it?</i> <i>It is _____ cm.</i> <i>Long.</i> - Topic-specific vocabulary	Using formulaic expressions (repetition, availability of stock supplies, equipment specifications)	Speaking, listening, reading Pronunciation	5-10 m
#4	<b>Activity 5:</b> T asks Ss what they should say if they don't know the answer to a particular question. What are the professional ways to express ignorance? After listening to their spontaneous answers, T plays "It's Okay to Say 'I Don't Know' in Customer Service" video twice. After that, T and Ss go over handout #0104a (II- Ways to express ignorance in a professional way) in order to check comprehension.	<i>Let me ask my supervisor...</i> <i>I can find that information in a moment...</i>		Speaking, listening, reading	5-10 m
#1, #2, #3, #4,#5	<b>Activity 6:</b> (Task: Role play) With the aid of handout # 0104b, Ss are assigned different roles. SA plays the role of a customer and SB plays the role of the phone operator. Customer calls operator and asks for three pieces of equipment s/he needs. Using the sample brochures, operator answers customer's questions. Ss receive the	<i>Excuse me?</i> <i>Can you repeat that?</i> <i>I'm looking for...</i> <i>I need...</i> -Greetings	Using formulaic expressions (repetition, availability of stock supplies, equipment)	Speaking, listening, reading	35-40 m

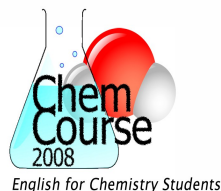
#6	<p>corresponding slips of paper with instructions on the task. Ss read them, and T makes sure Ss understand their roles. T models task with AT in order to verify understanding. Ss perform the task. T monitors performance, use of structures, and answers questions Ss may have. Ss switch roles to perform the task one more time. Ss report to the class. T asks for two groups who are willing to present their task to their classmates.</p>	<p>-Simple present - Wh- and Y/N questions - Affirmative vrs. Negative answers <i>Please, can you... Do you mean...? I need to... / You need to... I'm sorry, excuse me, etc. I'm sorry, we don't have any...</i> - Topic-specific vocabulary</p>	<p>specifications and descriptions Compensation Negotiation of meaning</p>		
	<p><b>Activity 7:</b> (Post-task: Awareness-Raising) In a general discussion, Ss and T comment on the performance of the conversations. T asks questions like: <i>“What were the most difficult aspects in order to carry out this task? What would you do differently? Did they omit anything? What would you add?”</i> Ss and T also comment on the problems they encountered in the task and the importance of politeness and of maintaining a professional demeanor on the phone.</p> <p><b>Activity 8:</b> (optional) T provides feedback on pronunciation and some grammar mistakes that Ss may have committed while performing the task. These words or expressions as usual, are written down by the teacher on the blackboard.</p>	<p><i>It's important to... Remember to...</i></p>	<p>Analysis Negotiation of meaningful Summarizing</p>	<p>Speaking and listening</p> <p>Listening, speaking, pronunciation</p>	<p>5-10 m</p> <p>5 m</p>

### Observations:

- As usual, topics are reviewed in oral and written form using the blackboard. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.

- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.

## Lesson Plan # 0105



**Http://www.chemcourseucr.com**  
**Unit # 1 “How can I help you?”**

**Task : Describing products and services in a written fashion**

**Date:** Aug. 25<sup>th</sup>, 2008

**Goal:** SWBAT engage in formal conversations with customers in order to exchange information about products and services over the phone and in a written fashion.

Teacher (T): Olmedo Bula  
 Assistant Teacher (AT): Jenaro A. Díaz-Ducca

### Specific Objectives: SWBAT

1. Recall useful expressions to ask for and describe products and services.
2. Recall and use relevant nouns and units of measurement to describe products and services.
3. Distinguish modals and their meanings within the context of CS.
4. Provide information about products and services in a written fashion within the context of CS (existence, prices, features, payment).
5. Comment orally in order to analyze the content of the communications (degree of politeness, usage and choice of expressions and modals, and possible changes / metacognitive).

#	Procedures	Language	Strategies	Skills	Time
2	<b>Activity 1:</b> (Warm-up) With the aid of handout # 0105a, Ss go over some nouns and units of measurement. Ss are to fill in the blanks with the corresponding information.	<i>Price, capacity, weight, brand, length, width, depth, g, kg, mm</i>		Reading and writing	10 m
1	<b>Activity 2:</b> (Warm-up) Randomly, T chooses a S to come to the front of the class. T asks the rest of the class to come up with different questions and useful expressions previously studied in class. T gives Ss a minute to write down their questions and/or expressions. In the meanwhile, T explains the S who is in front of the class her task. The S is to answer/respond her classmates' questions/statements with a coherent and logical response. T and AT model the activity. Ss go over the exercise.	<i>What kind of equipment do you need/sell? Do you have any analytical balances? How big/small is it? It is _____cm. Long.</i>	Using formulaic expressions (repetition, availability of stock supplies, equipment specifications and	Speaking and listening	10 m

#	Procedures	Language	Strategies	Skills	Time
3	<p><b>Activity 3:</b> (Language Focus-Raising Awareness) With the aid of a ppp, T goes over some simple and periphrastic modals (present in the structures previously studied). T focuses on distinguishing features-not distinct for the third person singular-nor marked for progressive or perfect aspect. Each slide of the presentation contains a modal, its meaning and examples. T explains the meaning of the modals for each particular circumstance. T elicits more examples from Ss.</p>	<p><i>Can you send me a quotation?</i>  <i>It <b>can</b> serve many purposes.</i>  <i>You <b>can</b> pay with a credit card.</i>  <i>You <b>may</b> pay with a check.</i>  <i>You are supposed to handle the analytical balance very carefully.</i>  <i>Thanks for the recommendation.</i></p>	<p>descriptions)</p> <p>Negotiation of meaning</p>	<p>Speaking, listening, and pronunciation</p> <p>Speaking, listening, and pronunciation</p> <p>Reading, listening, speaking, writing and pronunciation</p>	<p>10 m</p> <p>15 m</p> <p>15 m</p>
2 4	<p><b>Activity 4:</b> (Practice) With the aid of a ppp, Ss and T go over a vocabulary exercise on modals and useful expressions. T lets Ss analyze the different slides to choose the correct option. Then Ss are asked to perform the mini-conversations orally (inner-outer circle) using the phrases from the slides. T and AT model the activity. As Ss perform the task, T constantly reminds Ss of the different meanings of the modals.</p>	<p><i>Can, should, may, be supposed to, must, have to.</i>  <i>May I have your...?</i>  <i>Can you send ...?</i>  <i>You should...</i>  <i>It is supposed to...</i></p>		<p>Writing and reading</p>	
2 3 4	<p><b>Activity 5:</b> (Practice) With the aid of handout # 0105b, Ss are to go over an incomplete conversation about products and services. Ss' task is to carefully analyze and study the conversation in order to fill in the blanks with a logical and coherent answer/response. Ss use the useful expressions charts previously studied. T encourages Ss to use as many modals as they can. Next, Ss are asked to practice the conversation orally. Randomly, T chooses two groups to perform the task in front of the class. As Ss perform the task, T brings Ss' attention to the different meanings of the modals used in the conversations.</p>				
	<p><b>Activity 6:</b> (Practice-This activity is to be done in the computer lab) Using the blog created for the course, T will show Ss a written example of a communication between a chemical supplier and a customer with regard to different products. T brings Ss' attention to the different linguistic features previously studied (grammar usage, useful expressions, modals, politeness).</p>	<p><i>I'm looking for...</i>  <i>I need...</i>            -Greetings            -Simple present            - Wh- and Y/N questions</p>	<p>Using formulaic expressions (repetition, availability of stock supplies,</p>		10 m

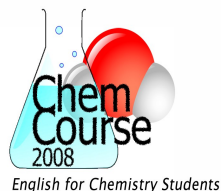


<p>Next, T divides the class into two groups, chemical suppliers and customers. Using nicknames or fake names, Ss construct their own pieces of communication to ask for and describe products and services in a written fashion (prices, existence, features, payment). Nicknames and or fake names are used to keep a sense of privacy, expectation and reality. T encourages Ss to give their best when constructing their pieces of information.</p> <p>Then Ss pair up. Ss are assigned one chain of communication (different from their own). Ss are to analyze the communication in order to provide feedback with regard to the content (degree of politeness, usage and choice of expressions and modals, and possible changes). T provides Ss with an example by breaking into bits the first piece of communication and going over it (original example). Besides, as Ss work on the conversations, T reviews relevant subtleties of the major linguistic elements of the communications.</p> <p><b>Hmk:</b> T will ask Ss to reflect on additional/more specific information (questions, statements, others) they might use/need when describing products and services that was not studied and that they consider being significant. T asks Ss to come up with a list of five questions, statements, and others, at least.</p>	<p>- Affirmative vrs. Negative answers  <i>Please, can you...  Do you mean...?  I need to... / You need to...  Do you sell...?  What's the price of...?  How much does it cost?  I'm sorry, we don't have any...</i>  - Topic-specific vocabulary</p>	<p>equipment specifications and descriptions</p> <p>Compensation</p> <p>Negotiation of meaning</p>	<p>Writing and reading</p> <p>Speaking, listening, reading, and pronunciation</p>	<p>30 m</p> <p>10 m</p>
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### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

## Lesson Plan # 0106



**Http://www.chemcourseucr.com**  
**Unit # 1 "How can I help you?"**

**Goal:** SWBAT *engage in formal conversations with customers in order to exchange information about products and services using electronic mail.*

**Task 2:** Describing products and services (features, characteristics)

**Date:** Aug. 27<sup>th</sup>, 2008

Teacher (T): Jenaro A. Díaz-Ducca  
 Assistant Teacher (AT): Olmedo Bula

### Specific Objectives: SWBAT

1. Apply useful expressions and use appropriate vocabulary in order to write and answer e-mails in a professional manner.
2. Provide information in writing about laboratory equipment in terms of dimensions, units of capacity, and other specific features based on an on-line catalogue.
3. Offer suggestions in order to improve their classmates' written production in a collaborative environment (peer-correction.)
4. Comment orally in order to explain the difficulties encountered during the tasks' development (metacognitive).

Specific Objective	Procedures	Language	Strategies	Skills	Time
#1	<b>Activity 1:</b> (Warm-up) T issues Handout #0106a and reviews it with Ss in order for them to be able to express and ask for opinions. This will prepare Ss for the Pre-task and Task.	<i>I think that...</i> <i>Do you agree?</i>	Compensation Negotiation of meaning	Speaking, listening and reading	5 m
	<b>Activity 2:</b> (Pre-task) T issues Handout #0106b so Ss can fill in the blanks in the Customer-CS Representative conversation using the appropriate phrases and vocabulary practiced in previous classes. In pairs, Ss read it, fill in the blanks, and practice the conversation. T checks it with Ss and later, T asks two pairs to read their completed dialogues.	<i>What is your e-mail?</i> <i>We send it via courier.</i> – Modals	Compensation Negotiation of meaning	Speaking, listening, reading and writing Pronunciation	20 m
#2,#1	<b>Activity 3:</b> (Task-Role play) In the Computer Laboratory, Ss work in pairs or trios (some pairs are set by T in advance in order to provide peer scaffolding to low-proficiency -LP- Ss) in order to	-Greetings -Simple present - Wh- and Y/N questions	Compensation Negotiation of meaning Formulation of questions	Speaking, listening, reading and writing	40 m

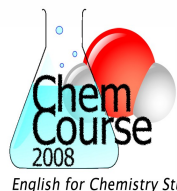
	<p>write and answer e-mails about laboratory equipment, by means of the course's Blog (<a href="http://chemcourseucr.blogspot.com/">http://chemcourseucr.blogspot.com/</a>) T calls Ss' attention to sample e-mails in the blog (see Handout #0106d for complete text) and the linguistic features previously studied (modals). T issues Handout #0106c and reads instructions to Ss so they can work in pairs anonymously as Customer (1 student) and CS Representatives (1-2 Ss) using fake e-mails (posts on blog.) Suggested collaborative pairs: Javier (LP) and Allen / Luis (LP) and Aníbal / Andrés (LP) and Deyvit. All information used about the laboratory equipment is taken from <a href="http://www.chennailaboratories.com">http://www.chennailaboratories.com</a></p>	<p>- Affirmative vrs. Negative answers <i>Do you sell environmental chambers? How much are they? How big/small is it? I need one that has a range of 0-100 nm.</i> - Topic-specific vocabulary - Modals</p>	<p>Using formulaic expressions (repetition, availability of supplies, equipment specifications, descriptions)</p>	<p>Spelling</p>	
#4	<p><b>Activity 4:</b> Once all groups have finished. T allows them to read all posts (questions and answers) and in new pairs, analyze the vocabulary, expressions, and language used. <i>Is it correct? Is it polite? Is it professional? Do you have any particular suggestions/corrections?</i></p>	<p><i>What do you think? I think this is right</i> - Modals</p>	<p>Compensation Expressing opinions Giving suggestions Negotiation of meaning</p>	<p>Speaking, listening and reading Pronunciation</p>	20 m
#5	<p><b>Activity 5:</b> (Post-task: Awareness-Raising) In a general discussion, Ss and T comment on the performance of the task. T asks questions like: <i>What were the most difficult aspects in order to carry out this task? What would you do differently? How is grammar/spelling important in order to look professional?</i> Ss and T also comment on the problems they encountered in the task and the importance of a professional image via when writing e-mails.</p>	<p><i>This is important because... I think that... We should...</i></p>	<p>Compensation Expressing opinions Giving suggestions Negotiation of meaning</p>	<p>Speaking, listening</p>	5-10 m
#5	<p><b>Activity 6:</b> (Homework) T asks Ss to post a short message on the Blog where they reflect on the importance and relevance of role playing (phone/e-mail) activities for their future career as chemists and researchers. T writes on the board: <i>How are these activities important / relevant for your future career?</i></p>				3 m

	<b>Activity 7: (Mid-Unit Quiz I)</b> Ss read and answer Quiz #01 related to the vocabulary, phrases, numbers, and modals used in class so far. They must complete a phone conversation between a Customer and a CS Representative. (See Quiz #01 with attached Answer Key.)	- Greetings, prices, descriptions - Polite expressions	Formulation of questions Using formulaic expressions (repetition, availability of supplies, equipment specifications, descriptions	Reading and writing	20 m
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### Observations:

- As usual, topics are reviewed in oral and written form using the blackboard. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained. This is followed by direct addressing: "Do you have any questions?"
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.

# Lesson Plan # 0107



## ChemCourse 2008 Unit # 1 "How can I help you?"

**Goal:** SWBAT *engage in formal conversations with customers in order to exchange information about products and services over the phone and in a written fashion.*

**Task :** Setting up an appointments to define a sale

**Date:** September 1<sup>st</sup>, 2008

Teacher (T): Olmedo Bula

Assistant Teacher (AT): Jenaro A. Díaz-Ducca

### Specific Objectives: SWBAT

1. Use predicting as an effective strategy within the context of CS.
2. Set up an appointment to define a sale of a chemical product or service in a polite way.
3. Distinguish and use prepositions (at, in, on) correctly when setting up an appointment to define a sale of a chemical product or service.
4. Recall the correct pronunciation patterns in y/n questions and information questions (rising and falling).

Procedures	Language	Strategies	Skills	Time
<p><b>Activity 1:</b> (Warm-up/pre-listening) Ss watch the first minute of the video "Examples of Good Customer Service" with sound off. T writes the name of the video on the board. Besides, T asks Ss to focus on the different images, gestures, and body language. In pairs, T asks Ss to predict on the content of the video. T writes Ss' predictions on the board.</p> <p>Next, T goes over some keywords Ss are to listen in the video. T writes those words on the board and provides Ss with some examples of these keywords. T clarifies any doubts. T elicits more examples from Ss.</p> <p>(While-listening) With the aid of handout #0107a (ex. 1), Ss watch the video in order to number the steps the host mentions in the order they appear (general information). T and Ss check the order of the steps. Next, with the aid</p>	<p><i>Examples of Good Customer Service</i>  <i>This video deals with...</i>  <i>It probably...</i>  <i>I think...</i>  <i>I do believe that...</i>  <i>Follow up, powerful, emphasize, golden rule, tools, business knowledge, be polite, be courteous, please, thank you, be helpful, do say ...</i></p>	<p>Predicting</p> <p>Predicting</p>	<p>Speaking and reading</p> <p>Speaking and reading</p> <p>Listening, reading and speaking</p>	<p>20 m</p>

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<p>of handout #0107a (ex. 2), Ss watch the video a second time in order to check whether the statements are true or not (specific information). T and Ss check the exercise.</p> <p>(Post-listening) T writes the following questions on the board: <i>Do you agree with these steps? Can you think of other examples?</i> Ss pair up to answer the questions orally. Ss share their answers with the rest of the class in a round-table discussion. T writes the most relevant ideas on the board to summarize Ss’ opinions. These questions go beyond the literal level of comprehension (lowest level). They can be placed in upper levels such as appreciation and evaluation. Finally T asks Ss if their predictions were correct or not.</p> <p><b>Activity 2:</b> (Pre-task) T makes a quick review of months of the year and days of the week. With the aid of handout #0107b, T and Ss go over some time expressions. T explains the subtleties of these expressions. T elicits more expressions from Ss.</p> <p>Next, T and Ss go over some useful expressions to set up an appointment to define a sale. T models the different expressions and responses. T focuses on specific features (formality, politeness, usage of some modals, and the usage of <i>mind</i> in requests). T elicits more examples from Ss.</p> <p>With the aid of a recording, Ss listen to a conversation between a chemical supplier and a customer in which the speakers set up an appointment (similar one to the task Ss are to perform). T asks Ss to focus on the expressions the speakers use. Ss note down some useful expressions and phrases. Besides, T asks some questions on the content of the conversation to verify understanding.</p>	<p><i>Do you agree with these steps? Can you think of other examples?</i>  <i>Oh yes. It is...</i>  <i>No, not at all.</i>  <i>For me,...</i>  <i>I think that...</i></p> <p><i>Monday, Tuesday, Wednesday, January, February, March, in the morning, at noon, on Friday</i></p> <p><i>Can I call you...?</i>  <i>How about...?</i>  <i>Let’s get together...</i>  <i>Do you mind...?</i>  <i>Sure, no problem.</i>  <i>Of course.</i>  <i>I am sorry. I can’t...</i>  <i>I need to se the equipment working.</i></p>	<p>Using formulaic expressions</p> <p>Using formulaic expressions</p>	<p>Speaking, listening, reading and pronunciation</p> <p>Speaking, listening, reading and pronunciation</p> <p>Reading, listening, speaking and pronunciation</p> <p>Listening and speaking</p>	<p>20 m</p>
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**Activity 3:** (Task-role play) With the aid of handout # 0107c, Ss are assigned different roles. SA plays the role of a customer and SB plays the role of the chemical supplier. Chemical supplier calls customer to set up an appointment to define the sale of a product or service. Ss are asked to use the useful expressions chart. Ss are issued the corresponding slips of paper with instructions on the task. Ss read them, and T makes sure Ss understand their roles. T demonstrates and example with one student to verify understanding. Ss perform the task (back to back). T monitors performance, use of structures, and answers questions Ss may have. Ss switch roles to perform the task one more time. Ss report to the class. T asks for two groups who are willing to present their task to their classmates. Ss are asked to pay attention and note down their suggestions for their classmates.

**Activity 4:** (Language focus) T brings Ss attention to the different intonation patterns in the conversation (rising/falling). T asks Ss if they can come with the rule (quick review). T elicits more examples from Ss.

Besides, T brings Ss' attention to the different prepositions used in the conversations. T explains the subtleties of each preposition. T focuses on Ss mastering the different uses of the prepositions one at a time. Since these prepositions (in, on, at) have different meanings and uses (time, location), the ESP practitioners believe this is a useful approach to address these prepositions. T elicits more examples from Ss.

Next, with the aid of handout #0107d, Ss fill in the blanks with the corresponding preposition. T and Ss check the exercise on the board.

(Optional) If necessary, T chooses two Ss randomly to role-play the conversation one more time paying attention to these linguistic features.

*On Tuesday, on  
Wednesday, at 3pm,  
at 11 in the morning  
at night, at your  
company in one  
week, in two days, in  
September*

*Where can we...?  
Can you...?  
May I have your...?  
Can you send ...?*

*On Tuesday, on  
Wednesday, at 3pm,  
at 11 in the morning  
at night, at your  
company in one  
week, in two days, in  
September*

Using  
formulaic  
expressions

Negotiation of  
meaning

Using  
formulaic  
expressions

Reading,  
speaking,  
listening and  
pronunciation

Listening,  
reading,  
pronunciation  
and speaking

Writing and  
reading

Speaking,  
listening and  
pronunciation

20 m

20 m

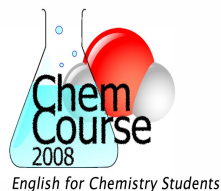
<p><b>Activity 5:</b> Ss watch the first minute of the video “<i>Examples of Bad Customer Service</i>” with sound off. T writes the name of the video on the board. Besides, T asks Ss to focus on the different images, gestures, and body language. In pairs, T asks Ss to predict on the content of the video. T writes Ss’ predictions on the board.</p> <p>Next, T goes over some keywords Ss are to listen in the video. T writes those words on the board and provides Ss with some examples of these keywords. T clarifies any doubts. T elicits more examples from Ss.</p> <p>Ss watch the short video “<i>Examples of Bad Customer Service</i>”. Then T asks Ss to comment in trios what the video discussed and to decide if they agree or disagree with the contents. Each trio will present the reasons why they agree or disagree with the video along with any extra points they consider relevant about CS. Finally T asks Ss if their predictions were correct or not.</p> <p><b>Hmk:</b> T will ask Ss to reflect on additional/more specific information (questions, statements, others) they might use/need when describing products and services that was not studied and that they consider being significant. T asks Ss to come up with a list of five questions, statements, and others, at least.</p>	<p><i>Don'ts</i>  <i>Don't be rude, don't be too casual, don't lie, don't rush the customer</i>  <i>Topic-specific vocabulary</i></p>	<p>Negotiation of meaning</p> <p>Predicting</p>	<p>Speaking, listening and pronunciation</p>	<p>20 m</p>
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### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.



## Lesson Plan # 0108



**Http://www.chemcourseucr.com**  
**Unit # 1 “How can I help you?”**

**Goal:** SWBAT *engage in formal conversations with customers in order to exchange information about products and services using electronic mail.*

**Task 3:** Setting up an appointments to define a sale.

**Task 4:** Helping customers on the phone and via e-mail, answering their questions, and setting an appointment

**Date:** Sept. 3<sup>rd</sup>, 2008

Teacher (T): Jenaro A. Díaz-Ducca

Assistant Teacher (AT): Olmedo Bula

### Specific Objectives: SWBAT

1. Analyze an ironic example of bad customer service, based on the basic aspects about the topic studied so far.
2. Set up an appointment to define a sale of a chemical product or service in a polite way by e-mail (review.)
3. Apply appropriate vocabulary, expressions, and register in order to write and answer e-mails in a professional manner.
4. Analyze and provide suggestions in terms of language and content (Customer Service) in order to improve their classmates' written production in a collaborative environment (peer correction.)
5. Comment orally in order to explain the difficulties encountered during the in-class tasks' development (metacognitive.)

Specific Objective	Procedures	Language	Strategies	Skills	Time
	<b>Activity 1:</b> (Pre-task: Brainstorming) In pairs, for three minutes Ss discuss the following question that is asked by T: “ <i>How do we deal with tough (problematic) customers?</i> ” T asks pairs about their ideas and writes them on the board. T issues and goes over Handout #0108a, Part I, with a preparatory glossary for the video “ <i>Dealing with Tough Customers.</i> ” Next, Ss watch the short video “ <i>Dealing with Tough Customers</i> ” twice. In pairs, Ss summarize the points that the host mentioned and contrast them with the ideas that were written on the board previously. As a final reflection, T and Ss discuss the importance of following these points in a Customer Service context for the chemical industry.	<i>I think that...</i> <i>Do you agree?</i> <i>We have to stay calm.</i> <i>We must be polite.</i> - Modals	Predicting Compensation Negotiation of meaning	Speaking, listening and reading	20 m

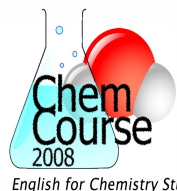
#1	<p><b>Activity 2:</b> (Task) T issues and goes over Handout #0108a, Part II, with a preparatory glossary for the video “<i>The Evil Manager</i>.” Ss watch the video twice. In their pairs, Ss try to agree on what the Manager said and did incorrectly and try to come with their own suggestions (solutions) to the situations. T asks each pair to present their ideas to the rest of the class.</p> <p><b>Activity 3:</b> (Post task-optional) Possible grammar or pronunciation problems are addressed and corrected on the blackboard (peer and teacher-correction.) Here, T will use words or phrases he overheard from Ss during Activity 2.</p>	<p><i>I think that...</i>  <i>Do you agree?</i>  <i>He has to...</i>  <i>He didn't...</i>            - Modals.</p>	Compensation Negotiation of meaning	Speaking, listening, reading	25-30 m
#3	<p><b>Activity 4:</b> (Warm-up) In the Computer Laboratory, Ss pair up again in the groups they had formed in Lesson #0106 (pairs or trios.) T reviews with Ss Handout #0107b from previous class in order to emphasize expressions used in order to set an appointment with a customer.</p>	<p>-Greetings            -Y/N and Wh-questions            - Topic-specific vocabulary            - Formal addressing            - Appropriate register</p>	Compensation Negotiation of meaning	Speaking, listening and reading	5 m
#2,#3	<p><b>Activity 5:</b> (Task and Pre-Task to Activity 6) T issues issues and goes over Handout #0108b. By continuing their previous fake e-mail exchanges (blog posts and replies) Ss will set up appointments via simulated e-mail in order to define a sale of laboratory equipment. For this, they will use the course's Blog (<a href="http://chemcourseucr.blogspot.com">http://chemcourseucr.blogspot.com</a>) Suggested collaborative pairs from class #0106: Javier (LP) and Allen / Luis (LP) and Aníbal. All information about the laboratory equipment was taken from <a href="http://www.chennailaboratories.com">http://www.chennailaboratories.com</a></p>	<p>– Modals  <i>Can I call you tomorrow morning?</i>            – <i>That's a good idea.</i></p>	Formulation of questions Using formulaic expressions	Speaking, listening, reading, and writing Spelling	15 m
#4,#3	<p><b>Activity 6:</b> (Task, Post-task to Activity 5) Once all groups have finished, T asks them to choose someone else's blog exchange, to read all comments and replies (questions and answers) and to</p>	<p><i>What do you think?</i>  <i>I think this is right</i>  <i>We must look</i></p>	-Same as above Compensation Negotiation of meaning	Reading, speaking, and listening	20 m

#5	analyze the vocabulary, expressions, and language used. These questions are written on the board in order to guide them: <i>Is it correct? Is it polite? Is it professional? Do you have any particular suggestions/corrections?</i> Then, each pair offers suggestions for the particular exchange they analyzed to the rest of the class.	<i>professional</i> - Modals			
	<p><b>Activity 7:</b> (Post-task: Awareness-Raising) In a general discussion, Ss and T comment on the performance of the task. T asks questions like: <i>What were the most difficult aspects in order to carry out this task? What would you do differently? How are correct grammar and spelling important in order to appear professional?</i> Ss and T also comment on the problems they encountered in the task and the importance of a professional image via when writing e-mails.</p> <p><b>Activity 8:</b> (Homework) T asks Ss to post a short message on the Blog where they reflect on the importance and relevance of Unit 1's contents and (phone/e-mail) activities for their future career as chemists and researchers. T writes on the board: <i>What have I learned in this first Unit? How are these activities and contents important / relevant for my future career?</i> For this, Ss will be referred to Handout #0106a for expressing opinions.</p>	<i>This is important because...</i> <i>I think that...</i> <i>We should...</i>	Compensation Expressing opinions Giving suggestions Negotiation of meaning	Reading, speaking, and listening	10 m
		<i>This is important because...</i> <i>I think that...</i> <i>We should...</i>	Expressing opinions Giving suggestions Using formulaic expressions	Reading and writing	3 m

### Observations:

- As usual, topics are reviewed in oral and written form using the blackboard. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained. This is followed by direct addressing: "Do you have any questions?"
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.

# Lesson Plan # 0201



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com)  
Unit # 2 "Dealing with scientific literature"

**Task : Read a chemical article (1<sup>st</sup> part)**

**Date:** September 8<sup>th</sup>, 2008

**Goal:** SWBAT *Read specialized literature in order to use it in their own projects.*

**Teacher (T):** Olmedo Bula  
**Assistant Teacher (AT):** Jenaro A. Díaz-Ducca

## Specific Objectives: SWBAT

1. Improve their written production in a collaborative environment (peer correction).
2. Recall procedures and strategies when reading scientific literature in English.
3. Activate schema about keywords related to a chemical article.
4. Use predicting as a reading strategy.
5. Skim the article to get the main idea.
6. Discriminate whether given statements are true or false.

Procedures	Language	Strategies	Skills	Time
<p><b>Activity 1:</b> (Checking hmk-this activity is to be done in the computer laboratory) Randomly, Ss are called to the front of the class to provide their feedback with regard to the content and language of the different communications (politeness, formality, prices, clarification, confirmation, modals, grammar, spelling, and possible changes and extra information). T elicits more examples from Ss. T encourages Ss to participate.</p>	<p><i>What kind of equipment do you need/sell?</i> <i>Do you have any analytical balances?</i> <i>How big/small is it?</i> <i>It is _____ cm. long.</i></p>	<p>Using formulaic expressions</p> <p>Negotiation of meaning</p>	<p>Speaking, reading, listening and pronunciation</p>	30 m
<p><b>Activity 2:</b> (Pre-task) With the aid of handout # 0201a, Ss are to go over some questions related to the process of reading. T divides the class into three groups. T and Ss read the questions. T clarifies any doubts. T and Ss also read the useful expressions chart. T models these expressions. Ss answer the</p>	<p><i>I usually read...</i> <i>The articles I...</i> <i>It was about...</i> <i>Yes, I read the...</i></p>	<p>Brainstorming</p>	<p>Listening, reading and speaking</p>	10 m

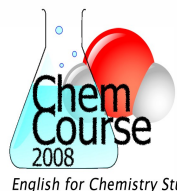
<p>questions orally within their groups. T encourages Ss to use the useful expressions chart. T and Ss share their answers in a round-table discussion (the aim of the activity is to introduce reading and go over some subtleties of this process).</p> <p><b>Activity 3:</b> T establishes a reading context. Ss are to think they are industrial chemists. With the aid of handout # 0201b and in groups of four, Ss brainstorm about pictures related to keywords present in the article. Ss write as many related-words as they know about these pictures. Ss report to the class. T writes these keywords on the board. T and Ss clarify any doubts with regard to the meaning of these keywords. T and Ss will do some choral and individual repetition. Next, Ss will try to find the connection of these pictures/keywords with industrial chemistry. T encourages Ss to justify their answers using simple structures and vocabulary. Ss report to the class.</p> <p><b>Activity 4:</b> With the aid of handout # 0201c and in groups of four, Ss read the title of the article. Next, Ss predict the content of the article by checking the statements they think the article deals with. Ss justify their answers using simple structures and vocabulary. Ss report to the class.</p> <p><b>Activity 5:</b> With the aid of handout # 0201d and in groups of four, Ss are to try to provide their own definition or write a sentence using some keywords present in the text they are about to read. T and Ss go over an example (chitosan). Ss report to the class.</p> <p><b>Activity 6:</b> (Task) With the aid of handout # 0201e and in pairs, Ss skim the text to check the statement that best expresses the main idea of the article. T acts as monitor. T and Ss go over the main idea of the article.</p>	<p><i>No, I pause...</i>  <i>I try to...</i>  <i>I have noticed...</i></p>	Using formulaic expressions		
	<p><i>Chitosan, crab, shrimp</i>  <i>Inula helenium L. extract, chitin, process, investigation, study, natural preservative system, investigation, development, materials and method</i>  <i>The connection is...</i></p>	Brainstorming	Speaking, listening, reading, writing and pronunciation	10 m
	<p><i>I think that...</i>  <i>To me...</i>  <i>I believe that...</i></p>	Predicting	Speaking, listening, reading and pronunciation	10 m
	<p><i>Viscosity probably means...</i></p>	Brainstorming	Reading, listening, speaking and writing	10 m
	<p><i>Antimicrobial is the process...</i></p>	Skimming	Reading and speaking	15 m

<p><b>Activity 7:</b> With the aid of handout # 0201f and in pairs, Ss read the text to decide if the given statements are false or true. Ss report to the class.</p> <p><b>Hmk:</b> T asks Ss to find out any difficult word/phrase in the text to find its meaning.</p>	<p><i>Sentence #2 is false.</i> <i>Sentence #3 is true.</i></p>	<p>Scanning</p>	<p>Reading and speaking</p>	<p>15 m</p>
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## Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

## Lesson Plan # 0202



Http://www.chemcourseucr.com  
**Unit # 2 "Dealing with scientific literature"**

Goal: SWBAT *Read specialized literature in order to use it in their own projects.*

**Task 1:** Reading and selecting articles applying both top-down and bottom-up approaches and reading strategies.

**Date:** September 10<sup>th</sup>, 2008

Teacher (T): Jenaro A. Díaz-Ducca  
 Assistant Teacher (AT): Olmedo Bula

### Specific Objectives: SWBAT

1. Consciously apply predicting as a reading strategy in order to speculate about the article's contents.
2. Apply skimming to an article as a conscious strategy in order to extract the main ideas (metacognitive.)
3. Establish whether given statements are true or false based on the article by means of *skimming*.
4. Apply scanning to an the article as a conscious strategy in order to locate specific pieces of information (metacognitive.)
5. Deduce and formulate the pronunciation rule for the “-ed” morpheme based on vocabulary taken from an article.

Specific Objective	Procedures	Language	Strategies	Skills	Time
	<p><b>Activity 1:</b> (Warm-up) T asks Ss to briefly summarize what was done in previous class. T asks Ss: “How is reading important in your major? In your career?” T listens to some answers and rephrases (to emphasize the importance of reading and thus, of Unit 2's lessons.) On the board, T briefly reviews the topic of reading strategies, asking Ss if they know the difference between <i>predicting</i>, <i>skimming</i>, and <i>scanning</i>. If necessary, T explains. Telling Ss that they will be practising <i>predicting</i> and <i>skimming</i> in a moment. T warns Ss that first they need to see some important verbs in the past tense (T reminds Ss of past tense activity from last class) that will appear in the reading.</p>	<p><i>Reading is important because...</i>  <i>We need to read...</i>  <i>Scanning is...</i>  <i>I usually read...</i></p>	<p>Brainstorming            Using formulaic expressions              Negotiation of meaning</p>	<p>Speaking, listening, reading, and pronunciation</p>	<p>10 m</p>

	<p><b>Activity 2:</b> (Pre-Task) T issues Handout # 0202a with a list of verbs in the past tense that will appear in the article. T asks Ss to repeat them after the instructor (choral reading) to check pronunciation. T asks the Ss to keep in mind the pronunciation of the “-ed” morpheme when they discuss the article during the Task and later (Post-Task).</p>	<p>”-ed” morpheme <i>extracted, repeated, limited, showed...</i></p>	<p>Repetition</p>	<p>Listening, reading, pronunciation, and speaking</p>	<p>6 m</p>
#1	<p><b>Activity 3:</b> (Checking HW - Pre-Task) T asks Ss to recall words they came up with during last class when they worked with the illustrations. <i>What topic does today's article discuss based on the vocabulary listed last class?</i> T writes Ss' ideas on the board to activate schemata and warns Ss that they will be able to verify their predictions in a moment.</p>	<p><i>We talked about... Chitosan, crab, shrimp extract, chitin, process</i></p>	<p>Predicting Recalling Brainstorming</p>	<p>Listening, reading, and speaking</p>	<p>6 m</p>
#1	<p><b>Activity 4:</b> (Pre-Task) T re-issues Handout #0106a and quickly reviews the ways to express an opinion. T issues Handout # 0202b. In pairs or trios, Ss <i>predict</i> the content of the article based only on the title provided by checking the statements they think the article deals with. Ss justify their answers with useful structures and vocabulary from Handout #0106a. T asks Ss to report to the class (calling them by name if necessary.) <b>(All answers are correct.)</b></p>	<p><i>I think that... I agree/ disagree... This preservative system includes chitosan ***This one was correct / incorrect ***I don't know.</i></p>	<p>Predicting Negotiation of meaning Guessing Brainstorming</p>	<p>Reading, speaking, listening, and reading</p>	<p>10 m</p>
#2,#1	<p><b>Activity 5:</b> (Task) T issues the first two pages of the article <b><i>“Development of a natural [...] using the mixture of chitosan-Inula helenium L. extract.”</i></b> In their pairs or trios, Tasks Ss to <i>skim</i> the article (by glancing very quickly through it) to verify if their predictions in Activity 3 and Act. 4 were correct. T checks answers. T calls Ss' attention to the fact that they have used <i>predicting</i> and <i>skimming</i> for this task (metacognitive skills.)</p>		<p>Skimming Using formulaic expressions Negotiation of meaning</p>	<p>Speaking, listening, reading, and pronunciation</p>	<p>10 m</p>
		<p><i>I think that...</i></p>			<p>6-10</p>



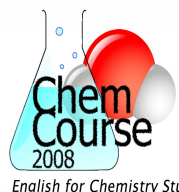
#2	<b>Activity 6: (Task)</b> In pairs or trios and with the aid of handout # 0202c, Ss apply <i>skimming</i> to determine the statement that best summarizes the main idea of the article. T acts as monitor and checks answer. T calls Ss' attention to the fact that they have used <i>skimming</i> for this task (metacognitive skills.)( <b>Correct answer: a</b> )	<i>To me...</i> <i>I believe that...</i>	Skimming Using formulaic expressions Negotiation of meaning	Reading, listening, speaking, and writing	m
#3	<b>Activity 7: (Task)</b> With the aid of handout # 0202d and in pairs, Ss <i>skim</i> through the article in order to decide if the given statements are true or false. Ss report to the class. T calls Ss' attention to the fact that they have used <i>skimming</i> for this task (metacognitive skills.) ( <b>Answers: 1,F ; 2,T; 3,T ; 4,T; 5, F; 6,T; 7,F; 8, F; 9, T.</b> )	<i>I think that...</i> <i>To me...</i> <i>I believe that...</i> <i>This is false because...</i>	Skimming Using formulaic expressions Negotiation of meaning	Reading, speaking, and listening	10 m
#4	<b>Activity 8: (Task)</b> T explains that the following activities will be applications of <i>scanning</i> . This activity will develop as a competition among pairs and the first ones who find the answer must raise their hands. The rest stops immediately and listens to the answer. In pair or trios, T asks Ss to <i>scan</i> the text in order to find the following pieces of information:  -Who suggests that the antimicrobial mechanism of chitosan relates to free amino group? (paragraph II) - How can ionic linkage be formed? (paragraph II) - How tall is the Inula helenium? (paragraph II) -What was the concentration of ethanol used for the I. Helenium? (P.IV) -What is the molecular weight of Chitosan? (p.III) -What was the drying temperature of the paper disks) (p.VIII)	<i>Uchida suggested that...</i> ***Where is it? ***We found it! ***Here it is!	Scanning Negotiation of meaning Using formulaic expressions	Reading, speaking, and listening	10 m
#5	<b>Activity 9: (Task)</b> T issues two more pages of the article to each pair and tells Ss to choose three pieces of data from the text (including diagrams and graphics). Then, each group will ask the others to find that piece of data by giving the context (just like in	<i>Where is...?</i> <i>Who...?</i> <i>What's the viscosity of...?</i>	Scanning Negotiation of meaning Using	Reading, speaking, and listening	10-15 m

	<p>Activity 8). Pairs take turns asking for the data while the rest look for the answer. T calls Ss' attention to the fact that they have used <i>scanning</i> for this task (metacognitive skills.)</p> <p><b>Activity 10:</b> (Post-Task – Language focus) By referring Ss back to Handout #0202a, T writes on the board in three columns, the following verbs in the past tense: <i>charged, considered, showed</i> (Column I); <i>attached, addressed, mixed</i> (Column B); <i>extracted, limited, loaded</i> (Column C). T proceeds to read each column three times emphasizing the pronunciation of the “-ed” morpheme, asking Ss to repeat (choral reading.) Next, T asks Ss to deduce the rule behind the pronunciation of the “-ed” morpheme based on the examples. Then, T asks pairs to offer their hypotheses about the rules. T reviews the rule and asks Ss to write I, II, or III next to each verb in Handout #0202a based on the correct rules.</p> <p><b>Homework:</b> T asks Ss to study for Final Quiz for Unit 1, to take place on Sept. 17<sup>th</sup>.</p>	<p><i>I think that...</i>  <i>To me...</i>  <i>I believe that...</i>  <i>I don't know</i>  <i>Verbs that end in v</i>  <i>or d are</i>  <i>pronounced...</i></p> <p><i>Customer Service</i>  <i>manners,</i>  <i>vocabulary, and</i>  <i>expressions</i></p>	<p>formulaic expressions</p> <p>Negotiation of meaning  Analysis  Synthesis  Hypothesizing</p>	<p>Reading, speaking, listening, and writing</p>	<p>10-15 m</p>

## Observations:

- As usual, topics are reviewed in oral and written form using the blackboard. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

## Lesson Plan # 0203



**Http://www.chemcourseucr.com**  
**Unit # 2 "Dealing with scientific literature"**

Goal: SWBAT *Read specialized literature in order to use it in their own projects.*

**Tasks: Read a chemical article / Construct an oral summary of a chemical article**

**Date:** September 17<sup>th</sup>, 2008

Teacher (T): Olmedo Bula

Assistant Teacher (AT): Jenaro A. Díaz-Ducca

### Specific Objectives: SWBAT

1. Recognize the three different pronunciations of the *ed* morpheme of regular past participle verbs taken from a chemistry article.
2. Enlarge their vocabulary baggage by matching regular past participle verbs with their corresponding synonyms.
3. Produce correctly the pronunciations of the *ed* morpheme of regular past participle verbs in an oral summary.
4. Construct and present an oral summary from a chemistry article (short presentation).
5. Identify passive voice in a chemistry article (scientific usage).
6. Deduce context in a chemistry article.

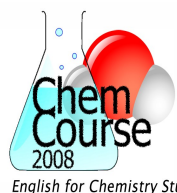
#	Procedures	Language	Strategies	Skills	Time
1	<p><b>Activity 1:</b> (Warm-up) T divides the class into three groups. T provides each group with a different pronunciation ending of the <i>ed</i> morpheme (regular simple past/past participle). T asks Ss to re-state the rule for each ending and to provide two examples. Ss report to the class (general review from previous class). Next, with the aid of handout # 0203a, T distributes three different lists with regular past participle verbs (to be used in the reading task). Ss are to classify these verbs into the different pronunciation endings according to the rule. T and Ss check the exercise on the board. T and Ss do some choral repetition emphasizing the different pronunciations of the <i>ed</i> morpheme.</p>	<i>/Id / /t/ /d/</i> <i>Associated</i> <i>Discovered</i> <i>Extracted</i> <i>Subjected</i> <i>Accomplished</i> <i>Compared</i> <i>Required</i> <i>Localized</i>	Brainstorming	Speaking, reading, listening and pronunciation	5 m
6	<p><b>Activity 2:</b> (Pre-task) With the aid of handout # 0203b, Ss are asked to read the title of article to predict its content by providing their own ideas (challenge Ss). T and Ss go over some useful expressions to perform the exercise. T encourages Ss to use the expressions while making their predictions. Ss report</p>	<i>For me...</i> <i>To me...</i> <i>I (think) believe</i>	Predicting	Reading, speaking, listening	5 m

#					
6	<p>to the class.</p> <p><b>Activity 3:</b> T distributes the article “Identification of the Sex Pheromone of the German Cockroach, <i>Blattella germanica</i>”. In trios/pairs, Ss skim the text to provide an oral statement that summarizes the main idea of the article (challenge Ss). Ss report to the class. T emphasizes on the importance of skimming as a reading strategy (selecting which articles work for them or not).</p>	<p><i>that ...</i></p> <p><i>This reading deals with... Blattella germanica is... The pheromone suggests that...</i></p>	Skimming	<p>Listening, reading, speaking</p> <p>Speaking, listening, reading, writing and pronunciation</p>	<p>5 m</p> <p>10 m</p>
2	<p><b>Activity 4:</b> T divides the board into two parts and the class into two groups. T writes on both sides of the board a set of regular past participle verbs (from the reading). T provides Ss with a set of synonyms to these verbs. T explains the exercise, Ss are asked to match these words. T models the activity. T gives Ss time to analyze and study the words. Ss are asked to go to the board to match the regular past participle verb with the corresponding synonym. T and Ss check the exercise. T clarifies any doubts.</p>	<p><i>Discovered</i> <i>Extracted</i> <i>Subjected</i> <i>Accomplished</i> <i>Compared</i> <i>Required</i> <i>Localized</i></p>			
3	<p><b>Activity 5:</b> T presents his summary from a previous article studied in class emphasizing the pronunciation of the <i>ed</i> morpheme. T asks Ss to focus on the presentation and explains they are about to present something similar. T brings Ss attention to the different features of the presentation (greeting-closure-gestures-eye contact-time). T briefly comments on the importance of these elements.</p>	<p><i>The antimicrobial activities of chitosan were assessed ...</i> <i>The mixture of chitosan and I. helenium L. extract was tested using....</i></p>	Summarizing		<p>5 m</p>
1 4	<p><b>Activity 6:</b> (Task) With the aid of handout # 0203d and in pairs, Ss are asked to read the article and prepare an oral summary to present to the class (no more than 2 minutes). Ss are asked to focus on the pronunciations of the <i>ed</i> morpheme. Ss take into account the criteria provided by the teacher. Ss are asked to rehearse their summaries. Ss perform the task. T acts as a language advisor. T provides feedback on the pronunciation of the <i>ed</i> morpheme.</p>	<p><i>Blattella germanica- important residential and food-associated pests worldwide</i> <i>Blattella germanica carries / transfers pathogens</i></p>	Summarizing	<p>Reading, listening, speaking, writing and pronunciation</p> <p>Reading, speaking and</p>	<p>20 m</p>

### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

## Lesson Plan # 0204



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com)

### Unit # 2 "Dealing with scientific literature"

Goal: SWBAT *Read specialized literature in order to use it in their own projects.*

**Task 2:** Interpreting new vocabulary from context.

**Date:** September 22<sup>nd</sup>, 2008

Teacher (T): Jenaro A. Díaz-Ducca

Assistant Teacher (AT): Olmedo Bula

### Specific Objectives: SWBAT

1. Apply grammatical function analysis as a conscious strategy to deduce the meaning of words from context. (metacognitive)
2. Apply morphology analysis as a conscious strategy to deduce the meaning of words from context. (metacognitive)
3. Identify and classify new words according to their grammatical function within the sentence.
4. Pronounce the studied affixes correctly, by stressing vowel reduction. (schwa)

Specific Objective	Procedures	Language	Strategies	Skills	Time
#1, #2	<b>Activity 1:</b> (Warm-up) T asks Ss to summarize what was done in previous class. T writes on the board the following words: <i>"exert, detach, suddenly, conspicuous, quicklime, stack, certainly."</i> T asks Ss: <i>"What is the meaning of these words? In what ways can you find their meaning?"</i> T writes Ss' suggestions on the board as they brainstorm. T rephrases to emphasize the importance of deducing meaning from context by analyzing morphology and grammatical function. T announces that they will be applying those two strategies to guess the meaning of unknown words during today's class (metacognitive learning.)	<i>We talked about...</i> <i>We can look words in the dictionary...</i> <i>I don't know.</i>	Brainstorming Hypothesizing Using formulaic expressions	Speaking, listening, reading, pronunciation	5 m
#1, #2	<b>Activity 2:</b> (Pre-Task) T issues Handout #0204a. T asks Ss to focus on the words used in Activity 1. In pairs, they must try to determine their (grammatical) category by analyzing the function each word has within the sentence: <i>"Is this a verb? Is this an</i>	<i>I think that's a verb.</i> <i>I don't know.</i> <i>What do you think?</i> <i>Yes, I think so.</i>	Brainstorming Hypothesizing Using formulaic expressions	Speaking, listening, reading, writing	20 m

#3	<p><i>noun? An adjective?</i>” T allows Ss to try to answer the questions by themselves (in pairs or class discussion). If they do not remember the grammatical terms, T explains them according to their function as parts of speech. T checks Ss' answers. T reviews grammatical functions if he/she considers it necessary.</p> <p><b>Activity 3:</b> (Pre-Task and Mini Task) Now, T writes on the board: “<i>The <b>rasquetous burdle cuppotely</b> exploded.</i>” T explains these are fictitious words used to illustrate. In pairs, T asks Ss to suggest three real words that could replace each of the words written in bold type in the previous expression. T asks each pair to write a new sentence with their suggestions on the board. Then, T asks Ss to orally explain what function each word has within the sentence.</p>	<p><i>I think that...</i>  <i>I don't know.</i>  <i>What do you think?</i>  <i>We can write...</i></p>	<p>Guessing  Negotiation of meaning  Hypothesizing  Analysis  Using formulaic expressions</p>	<p>Reading,  speaking,  listening,  writing</p>	15 m
#1,#2,#3	<p><b>Activity 4:</b> (Pre-Task and Mini Post-Task) T asks Ss why knowing a new word's function is important when reading a text. If necessary, T prompts: “<i>Can you guess the meaning of a word by its function? Will that help you understand the text with less difficulty?</i>” T reminds Ss that deducing a word's grammatical function is one strategy to guess the meaning of an unknown word from context (metacognitive.) T announces that they will immediately study another strategy to guess the meaning of unknown words.</p>	<p><i>It's important because...</i>  <i>I think that...</i>  <i>I don't know.</i>  <i>What do you think?</i></p>	<p>Guessing  Negotiation of meaning  Hypothesizing  Analysis  Using formulaic expressions</p>	<p>Speaking,  listening</p>	6 m
#4	<p><b>Activity 5:</b> (Pre-Task) T writes on the board the following words: “chemist, teacher, useful.” Then, he divides them as follows: Chem-IST, teach-ER, use-FUL. T asks Ss what he did. He waits for their answers and echoes their ideas. If nobody answers correctly, T writes on the board “<i>root</i>” and “<i>affix</i>” and explains how the examples are composed of these two parts. T also elicits compound words made up of two words (roots): “<i>fireworks, hardware.</i>”</p>	<p><i>I think that...</i>  <i>I don't know.</i>  <i>What do you think?</i>  -Past tenses</p>	<p>Guessing  Hypothesizing  Analysis  Using formulaic expressions</p>	<p>Reading,  speaking,  listening,  writing</p>	10 m

#1,#2,#3	<b>Activity 6:</b> (Mini Task) T issues Handout #0204b. Individually or in pairs, Ss must break down the words into their components. Each pair then sends a representative to the board who separates each root from its affixes. T checks their answers along with the class.	<i>I think this is a root. You go to the board! I don't know. What do you think?</i>	Hypothesizing Analysis Negotiation of meaning Using formulaic expressions	Reading, speaking, listening, writing	10-15 m
#1,#2,#3	<b>Activity 7:</b> (Mini Post-Task) T issues Handout #0204c. T explains that there are many other affixes Ss may find: -OUS, UN-, A-, -LY, -EN, -NESS, -AL, PRE-, POST-. T asks Ss to elicit other examples they may know, and in particular, affixes used in chemistry. (Examples: ox-IDE, alcoh-OL.)	<i>I don't know. What do you think? We use "-ic" as an affix.</i>	Suggesting Negotiation of meaning Using formulaic expressions	Reading, speaking, listening	5-10 m
	<b>Activity 8:</b> (Pre-Task) T issues the article "A Catalytic [...] for Fluorocarbon Reactions." First, T asks Ss to skim through the text in order to have an idea of the article's contents. In pairs, Ss discuss their ideas. T writes their suggestions on the board.	<i>What do you think? This talks about... The topic of the article is...</i>	Skimming Negotiation of meaning	Reading, speaking, listening	5 m
#1,#2,#3	<b>Activity 9:</b> (Main Task) In pairs, T asks Ss to find 5 new words whose meaning they ignore. They must determine the words' grammatical function based on the context (their grammatical function within the sentence), and analyze their morphology based on roots and affixes or composing words. Each pair writes their examples on the board and divides the words into their components. Orally, they present to the class the meanings they guessed.	<i>Look at this word... What's...? I think this means...</i>	Skimming Scanning Analysis Hypothesizing Negotiation of meaning Using formulaic expressions	Reading, speaking, listening, writing	20 m
#4	<b>Activity 10:</b> (Post-Task – Language focus) If the -ed morpheme was not selected, or if it appeared in only one or two words, T will ask Ss to repeat the selected words emphasizing the vowel	- Vowel reduction	Pronunciation Repetition	Reading, listening, pronunciation	5 m

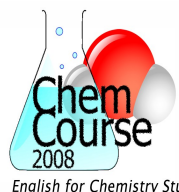


	<p>reduction in the affixes (schwa in most cases: <i>-al</i>, <i>-ol</i>, <i>-en</i>, <i>-un</i>.) They may use also Handouts #0204b and #0204c for this.</p> <p><b>Homework:</b> T asks Ss to look up the actual meaning of the words they analyzed in Activity 9 for next class in order to verify their deductions. T also asks Ss to keep the article because they will be using it in the following class to apply other reading strategies. T asks Ss to bring a dictionary with them for next class.</p>				2 m

### Observations:

- As usual, topics are reviewed in oral and written form using the blackboard. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

# Lesson Plan # 0205



**Http://www.chemcourseucr.com**  
**Unit # 2 "Dealing with scientific literature"**

Goal: SWBAT *Read specialized literature in order to use it in their own projects.*

**Tasks: Read a chemical article / Deduce non-stated information**

**Date:** September 24<sup>th</sup>, 2008

Teacher (T): Olmedo Bula

Assistant Teacher (AT): Jenaro A. Díaz-Ducca

## Specific Objectives: SWBAT

1. Apply grammatical function and morphological analysis (roots/affixes) as a conscious strategy to deduce the meaning of words from context (metacognitive).
2. Apply inferencing to deduce information when reading a chemistry article.
3. Identify passive voice in a chemistry article (scientific usage).
4. Use two basic word stress rules correctly when talking about a chemistry-related topic.
5. Construct and present an oral summary from a chemistry article (short presentation).

#	Procedures	Language	Strategies	Skills	Time
1	<b>Activity 1:</b> (Warm-up) Ss are asked to skim the text again to remember its content. Ss report to the class.		Skimming	Speaking and reading	5 m
1	<b>Activity 2:</b> (Task) In pairs, Ss are assigned different paragraphs of the article "A Catalytic Foothold for Fluorocarbon Reactions" in order to choose five words whose meaning they do not know. Ss are to determine the grammatical function of the word within the sentence based on the context and the morphological clues. Besides, Ss are to analyze their morphology based on roots and affixes or compound words. T models the activity and provides Ss with an example. Ss perform the task. Ss write their examples on the board by indicating their components. Orally, Ss present any ideas on the meaning of the words. T briefly comments on the importance of these morphological clues.	<i>Catalytic, reactions, molecules, structures</i> <i>The article deals...</i>  <i>React-ion-s</i> <i>r. a. a. (noun)</i>	Skimming Scanning Negotiation of meaning	Reading, speaking, listening and writing	10 m
	<b>Activity 3:</b> With the aid of a visual and in pairs, Ss are asked to brainstorm	<i>For me...</i>	Brainstorming	Listening,	15 m

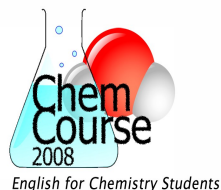
#	Procedures	Language	Strategies	Skills	Time
2	<p>what inferencing is. T models some useful expressions. T encourages Ss to use the expressions as they are brainstorming. Ss report to the class. T writes Ss' comments/ideas on the board. With the aid of a visual, T briefly explains what inferencing is. Ss and T go over some examples of inferencing. T clarifies any doubts. With the aid of handout # 0205a, Ss practice inferencing using some chemistry-related sentences. Ss perform the task. T acts as a language advisor. T monitors the activity. Ss and T check the exercise orally. T praises good examples of inferencing.</p>	<p><i>To me...</i>  <i>I (think) believe that...</i>  <i>Probably...</i>  <i>Inferencing deals...</i></p>	Inferencing	reading and speaking	
2	<p><b>Activity 4:</b> In pairs, Ss are assigned different paragraphs of the article in order to apply inferencing. Ss perform the task orally (Ss are asked to note down relevant information). Next, Ss are asked to share their ideas in a round-table discussion (Some time is given to Ss to rehearse what they actually have to say before getting engaged in the task).</p>	<p><i>Smaller fluorocarbon...</i>  <i>Acidity is essential...</i></p>	Inferencing	Speaking, listening, reading and writing	10 m
3	<p><b>Activity 5:</b> (Language focus) T divides the class into three groups. With the aid of handout # 0205b, T asks Ss to analyze and study the sentences to see if they can identify the structure. T encourages Ss to see the similarities and try to come up with a rule/pattern. Ss report to the class. If necessary and with the aid of a visual, T explains passive voice and how to construct it. Then T distributes a different article (previously studied) to each group. Ss are asked to scan the text to underline/highlight all the sentences with passive voice. Ss report to the class. T comments on the common usage of passive voice in chemistry articles (It is significant to notice that passive voice was used unconsciously by some Ss when performing the task in previous classes. This is also the main structure present in the previous readings studied in class).</p>	<p><i>Chitin is extracted from the rind of shrimps.</i>  <i>The antimicrobial was reported by the International Journal of Science.</i>  <i>The pheromone was discovered in 1993.</i></p>	Brainstorming Scanning	Reading, listening, speaking and writing	20 m
4	<p><b>Activity 6:</b> With the aid of handout # 0205c exe. 1, T reads two sets of key vocabulary items emphasizing word stress (group A-accented on the first syllable/group B-accented on the first syllable of the base word). T asks Ss to carefully listen to the pronunciation of the words to see if they recognize any</p>	<p><i>A: molecule, carbon, foothold</i>  <i>B: coworkers, innumerable, refrigerants</i></p>		Reading, speaking, listening, writing and pronunciation	20 m

<p>pattern/rule. T encourages Ss to come up with an answer/idea. Ss report to the class. Next, with the aid of handout # 0205c exe. 2, T and Ss go over two basic word stress rules. T and Ss do some choral and individual repetition. Ss are asked to add more words from their readings. Ss are asked to practice the rules by underlining the accented syllable and producing a sentence, paying close attention to word stress.</p> <p><b>Activity 7:</b> In pairs and with the aid of handout # 0205d, Ss are asked to prepare an oral summary of their reading paying attention to these features (passive voice, word stress rules, inferencing). Ss take into account the criteria provided by the teacher. Ss are asked to rehearse their summaries before presenting them. T acts as a language advisor. Ss perform the task. T provides feedback on these features.</p> <p><b>Optional activity:</b> With the aid of handout # 0205e, T and Ss go over the pronunciation rule of compound words. With the aid of visual clues, Ss fill in the blanks to construct compound words. Ss are asked to go back to their readings to find compound words. Finally, Ss are asked to provide their own sentences emphasizing the pronunciation of these compound words.</p> <p><b>Hmk:</b> Ss are asked to choose a sentence/paragraph from a chemistry-related article to apply inferencing. Ss are asked to be ready to share their ideas with the rest of the class.</p>	<p><i>The mixture of chitosan and I. helenium L. extract was tested using.... These features can...</i></p> <p><i>Cockroach, airplane, foothold</i></p>	<p>Summarizing Skimming Scanning Inferencing</p>	<p>Listening, speaking, reading and pronunciation</p>	<p>20 m</p>
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### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

## Lesson Plan # 0206



<http://www.chemcourseucr.com>  
**Unit # 2 "Dealing with scientific literature"**

Goal: SWBAT *Read specialized literature in order to use it in their own projects.*

**Task 2:** Interpreting new vocabulary from context.

**Task 3:** Extracting, summarizing and explaining main ideas to colleagues.

**Date:** September 29<sup>th</sup>., 2008

Teacher (T): Jenaro A. Díaz-Ducca

Assistant Teacher (AT): Olmedo Bula

### Specific Objectives: SWBAT

1. Apply word inferencing as a conscious strategy to cope with unknown words found in an article. (megacognitive)
2. Review the use of morphological and grammatical function analysis by applying them as conscious strategies to cope with unknown words found in an article. (megacognitive)
3. Analyze and summarize an article's content with the assistance of different reading strategies such as skimming, inferencing, grammatical function, and morphology analysis.
4. Discriminate between important and unimportant new vocabulary in order to extract an article's gist, by applying different reading strategies.
5. Produce vowel reduction correctly using examples selected from the analyzed texts (schwa.)
6. Transfer reading strategies to a listening text in order to extract its main ideas. ("Blitz Task")
7. Express a professional opinion by commenting on an audio text. ("Blitz Task")

Specific Objective	Procedures	Language	Strategies	Skills	Time
#1	<b>Activity 1:</b> (Pre-Task) Individually, T asks Ss to brainstorm and elicit their ideas about the importance and usefulness of guessing meaning from context, morphological and grammatical analysis, and ignoring unimportant words for their academic and professional careers.	<i>Guessing meaning is important because... We need it for... I don't think it's useful!</i>	Brainstorming Recalling Stating in own words	Reading Speaking Pronunciation	5 m
#1	<b>Activity 2:</b> (Pre-Task and mini Task) T issues Handout #0206a about "Geosmin" and word inferencing. In pairs or individually,	<i>I think it means... I don't agree with you...</i>	Inferencing Stating in own words	Reading Speaking Listening	10 m

#1, #5	<p>Ss will read the article's extracts and based on the clues offered by the text, will discuss what "Geosmin" is and present their inferences to the class.</p> <p><b>Activity 3:</b> (Post-Task) T issues slip #0206d with for Ss to verify their inferences: <i>Geosmin (literally "earth smell" is the protein responsible for the odor of warm, moist soil.</i> Ss discuss the difficulties they may have faced during the task. Language focus: T can select some of the words Ss analyzed and emphasize vowel reduction. Examples of vowel reduction: <i>prOfessOr, bacteria, sciEntist, discOvEr, chemIstry.</i></p>	<p><i>Look, it says here that...</i></p> <p><i>I think this was easy. Inferencing is tricky... Guessing meaning isn't very precise.</i></p>	<p>Hypothesizing Negotiation of meaning</p> <p>Analysis Synthesis Stating in own words</p>	<p>Speaking Listening Reading Pronunciation</p>	5-10 m
#1, #2	<p><b>Activity 4:</b> (Optional Task) If Ss did their HW from last class, that is, bringing paragraphs for inferencing, T will ask Ss to hand out the printed or electronic versions so they can be projected on the board. T will present one paragraph at a time, in a manner that Ss can offer their inferences. These can be discussed orally.</p>	<p><i>That means... I don't agree... I think that...</i></p>	<p>Inferencing Synthesis Stating in own words Negotiation of meaning</p>	<p>Reading Speaking Listening</p>	10 m
#2, #4, #5	<p><b>Activity 5:</b> (Main Task) In pairs, they will receive a short article that they must skim, read, discuss, summarize, and present in front of the class. Ss will have to apply grammatical function and morphology analysis, and inferencing to attack unknown words. They also need to decide which words are unimportant and why. T will issue Handout 0206b. Articles consulted from: <a href="http://www.rsc.org/Publishing/ChemScience/Volume/2008/02/">http://www.rsc.org/Publishing/ChemScience/Volume/2008/02/</a></p>	<p><i>I think that... That means that... I don't agree...</i></p>	<p>Skimming Inferencing Grammatical/ morphological analysis Summarizing Stating in own words Negotiation of meaning</p>	<p>Reading Speaking Listening Writing</p>	15 + 10 m
#4, #5	<p><b>Activity 6:</b> (Post-Task) Ss discuss the difficulties they may have faced during the task. They will also explain which words they considered unimportant and why. Language focus: T can select some of the words Ss analyzed and emphasize vowel reduction. Examples of vowel reduction: <i>synthEsIs, develOpmEnt, resEArch, polyMEr, methOd, Unreactive, agEnt,</i></p>	<p><i>I think this was easy. This was not important because... We have to be careful with this...</i></p>	<p>Analysis Synthesis Stating in own words Pronunciation Repetition</p>	<p>Speaking Listening Reading Pronunciation</p>	5 -10 m

	<i>solvEnt,sUrfAce, oxygEn, mAteriAl.</i>	-Vowel reduction			
#7	<p><b>Activity 7:</b> (Evaluation) T will apply Course Evaluation I to Ss. T issues “Autoevaluación del Estudiante” for Ss to fill and hand in next class.</p> <p><b>Homework:</b> T will ask Ss to select and bring in short articles for next class (taken from the Internet). They will also send either the article or the link to T (to be able to work with the electronic version). <b>Note:</b> T will talk about summarizing and commenting articles on the Blog starting next class. He will also emphasize the relevance and importance of extra-class practice.</p> <p>*****</p>				10-15 m
#6	<p><b>“BLITZ TASK”:</b> (Listening comprehension and expressing professional opinions) Ss will listen to a <i>60-Second Science</i> podcast that they will analyze and discuss. <b>Note:</b> Since this cycle seeks to re-create a real-life task, <b>T will not pre-teach any vocabulary, nor will provide the Ss with a transcription.</b> They are expected to extract meaning in a Social Constructivistic context. For this purpose, pairs will be formed by T with mixed proficiency levels in order to foster scaffolding. AT will actually time all activities and ring a small bell when each allotted period is over.</p>				<b>Total time: 27 m</b>
#6	<p><b>Blitz Activity 1:</b> (Pre-Task) T will provide Ss with the podcast's title. Ss will elicit their predictions regarding the newscast's contents. T will write these on the board.</p>	<p><i>This talks about... The topic of this is... This newscast is about...</i></p>	Brainstorming (schemata activation) Predicting	Reading Speaking Listening	2 m
#6	<p><b>Blitz Activity 2:</b> (Task 1):</p> <p>a. Ss will listen once to the complete podcast.</p>	<p><i>This talks about... What do you think?</i></p>	Stating in own words		1 m

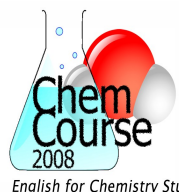
#6, #7	<p>b. Ss will listen again (they may note down some info) and comment what they understood with a partner.</p> <p>c. Ss will prepare a short summary (using their notes if necessary) and present it to the class.</p> <p>d. Ss will listen one more time to the podcast to confirm their summary against what they understood.</p>	<i>The main idea is...</i>	Summarizing Guessing meaning from context Stating in own words Negotiation of meaning	Listening Speaking Writing Reading	1 + 3 min. 3 + 3 min. 1 min.
	<b>Blitz Activity 3:</b> (Task 2): T will issue Handout 0206c and will hold a general discussion with the class. Ss will be able to express their interests, relate the topic to their field, and based on those, offer a professional opinion regarding the podcast.	<i>I found _____ interesting because... It is important because... This isn't related to my field!</i>	Analysis Synthesis Stating in own words Negotiation of meaning	Reading Speaking Listening	8 min.
	<b>Blitz Activity 4:</b> (Post-Task) Ss and T will comment on the difficulties they found. The words they missed and what could be done in that case (by transferring their reading skills about word-attack strategies.)	<i>I think this was easy. This was not important because... We have to be careful with this...</i>	Analysis Synthesis Stating in own words	Speaking Listening Reading	3 min.

### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.



# Lesson Plan # 0207



**Http://www.chemcourseucr.com**  
**Unit # 2 "Dealing with scientific literature"**

**Goal:** SWBAT *Read specialized literature in order to use it in their own projects.*

**Tasks:** Read a chemistry article / Summarize a chemistry article

**Date:** October 1<sup>st</sup>, 2008

**Teacher (T):** Olmedo Bula

**Assistant Teacher (AT):** Jenaro A. Díaz Ducca

## Specific Objectives: SWBAT

1. Review vowel reduction using examples selected from a chemistry text (schwa).
2. Apply paraphrasing as a conscious strategy to discuss a chemistry article (metacognitive).
3. Produce vowel reduction correctly when making an oral presentation (schwa).
4. Distinguish the main idea from supporting details in a chemistry article.
5. Recognize the importance of paraphrasing and vowel reduction in a professional environment (metacognitive).
6. Use reading strategies to construct a written summary from a chemistry article.

#	Procedures	Language	Strategies	Skills	Time
1	<p><b>Activity 1:</b> (Warm-up) Ss watch the video “<i>Chemists</i>” for 1 min. with the sound off. T models some useful expressions. Based on what they saw, Ss are to predict the content of the video. T encourages Ss to use the expressions when predicting the content of the video. Ss share their ideas with the rest of the class.</p> <p>With the aid of handout #0207a, Ss go over some examples of vowel reductions (schwa-these keywords are present in the video Ss are to watch). In pairs, Ss are asked to practice these words paying close attention to the vowel reduction. Ss and T go over these keywords (Ss and T might do some choral and individual repetition). Ss watch the video twice paying close attention to vowel reductions. Ss are asked to note down other examples of vowel reductions. Ss share their words with the rest of the class. Ss are also asked to check whether their predictions were right or wrong.</p>	<p><i>To me...</i>  <i>I think...</i>  <i>I believe that...</i>  <i>Probably...</i></p> <p><i>chemical</i>  <i>natUrAl</i>  <i>combInatIOn,</i>  <i>chemIstry</i>  <i>fibErs</i></p> <p><i>Chemicals make...</i></p>	Predicting Brainstorming	Speaking	15 m

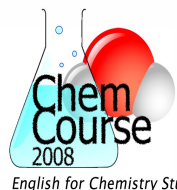
#	Procedures	Language	Strategies	Skills	Time
2	<p><b>Activity 2:</b> (Pre-task and mini task) With the aid of handout #0207b, Ss and T go over an example of paraphrasing. T explains Ss how to paraphrase. Next, Ss are asked to paraphrase some short paragraphs (Ss are asked to select five words to practice vowel reduction when paraphrasing the paragraphs). Ss share their ideas with the rest of the class. T encourages Ss to practice vowel reductions.</p> <p>Examples of vowel reductions from the paragraphs: cOntains, chemIcAl, particulAr, reactIOOn, prodUct.</p>	<i>Chemical formulas are symbols and numbers that represent...</i>	Paraphrasing	Reading, speaking, listening, writing and pronunciation	10 m
23 #	<p><b>Activity 3:</b> (Main task) With the aid of handout #0207c and in pairs, Ss are asked to prepare an oral presentation in which they need to paraphrase important ideas from the video (transfer reading strategies to an audio text). Ss watch the video “Chemists” one more time. Ss are asked to note down relevant information. Ss are given time to practice what they actually have to say before getting engaged in the task. T comments on the importance of elements like eye contact, gestures and posture. Ss perform the task. T acts as a language advisor. Ss report to the class (Ss are asked to select five words to practice vowel reduction when paraphrasing the video).</p> <p>Examples of vowel reductions from the video: chemIcAls, natUrAl, combInatIOOn, chemIstry, fibErs.</p>	<p><i>In our world, chemicals... Chemicals are important because...</i></p> <p><i>chemical natUrAl combInatIOOn, chemIstry fibErs</i></p>	Paraphrasing Summarizing	Reading, speaking, listening, writing and pronunciation	15 m
4					
5	<p><b>Activity 4:</b> T distributes the reading “Guanacastepene, a Fungal-Derived Diterpene Antibiotic with a New Carbon Skeleton”. Based on the title of the reading, Ss and T make a brief prediction about the content of the reading. Next, Ss are assigned different paragraphs to paraphrase them (Ss are asked to select five words to practice vowel reduction when paraphrasing the paragraphs). Ss are given time to practice what they actually have to say before getting engaged in the task. Ss perform the task (round-table discussion).</p> <p>Examples of vowel reductions from the reading: quartEr, prodUct, componEnt, numbEr, ActivItY.</p>	<p><i>I think... I believe that... Probably... Fungi is an important source of biologically active natural products. quartEr, prodUct, component</i></p>	Predicting	Reading, speaking, listening, writing and pronunciation	10 m
6					

<p><b>Activity 5:</b> (Language focus) T explains what main idea and supporting details mean. Ss are asked to scan the text to find the main idea and supporting details from the reading “<i>Guanacastepene, a Fungal-Derived Diterpene Antibiotic with a New Carbon Skeleton</i>”. Ss and T check the ideas on the board. T comments on the importance of distinguishing main ideas from supporting details.</p> <p><b>Activity 6:</b> T writes the following questions on the board: <i>What is the importance of vowel reduction (schwa)? What is the importance of paraphrasing?</i> In trios, Ss discuss their ideas. Ss share their ideas. T writes the most important ones on the board. T also provides important reasons.</p> <p><b>Computer lab task:</b> Ss are asked to take out the articles they brought for hmk (If Ss do not have an article, they are asked to work with the previous article). Ss read the article. Ss are also asked to apply all the strategies previously studied (inferencing, guessing from context, word attacking skills, paraphrasing). Ss summarize their article and post their summaries in the blog. T acts as a language advisor.</p> <p><b>Evaluation:</b> T applies midterm course evaluation</p> <p><b>Hmk:</b> Ss are asked to choose an article to underline the main idea and supporting details.</p>	<i>In this paper we report the isolation and characterization...</i>	Scanning	Listening, reading and speaking	10 m
	<i>Vowel reduction, paraphrasing It is important because...</i>	Negotiation of meaning	Speaking, listening and reading	30 m
		Summarizing Skimming Scanning Inferencing Paraphrasing Guessing from context	Reading, listening, speaking and writing	10 m

### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

## Lesson Plan # 0208



<http://www.chemcourseucr.com>  
Unit # 2 "Dealing with scientific literature"

Goal: SWBAT Read specialized literature in order to use it in their own projects.

**Task 3:** Extracting, summarizing and explaining main ideas to colleagues.

**Date:** October 6<sup>th</sup>., 2008

Teacher (T): Jenaro A. Díaz-Ducca  
Assistant Teacher (AT): Olmedo Bula

### Specific Objectives: SWBAT

1. Identify and discriminate correctly between main ideas and supporting ideas in order to understand a writer's ideas.
2. Review the application of paraphrasing at the sentence level based on the examples provided as a tool to avoid quotations.
3. Analyze the structure of an abstract by dividing it into its different parts correctly.
4. Discriminate between paraphrasing and summarizing an article's contents in order to understand a writer's ideas. (metacognitive)
5. Write an academic abstract in order to summarize an article's contents.
6. Produce vowel reduction correctly using examples selected from the analyzed texts (schwa.)
7. Transfer reading strategies to an audio text in order to extract its main ideas. ("Blitz Task")
8. Express a professional opinion by commenting on an audio text. ("Blitz Task")

Specific Objective	Procedures	Language	Strategies	Skills	Time
#1	<b>Activity 1:</b> (Pre-Task) Individually, T asks Ss to brainstorm and elicit their ideas about the importance and usefulness of discriminating between main ideas and supporting ideas in a paragraph in order to understand and summarize the contents of an article. T writes Ss' ideas on the board.	<i>Finding this is important because... We need it for... I don't think it's useful!</i>	Brainstorming Recalling Stating in own words	Reading Speaking Pronunciation	3 m
#1	<b>Activity 2:</b> (Task) T issues Handout #0208a and asks Ss to pay attention to the example provided of main idea versus supporting	<i>This one is a main idea... I don't agree with</i>	Analysis Hypothesizing Stating in own	Reading Speaking Listening	10 m

	<p>details. Then, T asks Ss to label (by underlining) the main idea and the supporting ideas in the paragraphs provided. Then, T checks them with the class.</p>	<p><i>you... Look, it says here that...</i></p>	<p>words Negotiation of meaning</p>		
#6	<p><b>Activity 3:</b> (Post-Task) Ss discuss the difficulties they may have faced during the task. Language focus: T can select some of the words Ss analyzed and emphasize vowel reduction by asking Ss to pronounce the words with him: <b>UnravElled - diamEtEr - carbOn - cOnsidEring - pOtentIAI - lubriCAnts</b></p>	<p><i>I think this was easy. This is similar to skimming. This process isn't very precise.</i></p>	<p>Analysis Synthesis Stating in own words</p>	<p>Speaking Listening Reading Pronunciation</p>	5 m
#2	<p><b>Activity 4:</b> (Pre-Task) T asks Ss to brainstorm and elicit their ideas regarding what paraphrasing is and the importance and usefulness of paraphrasing an article's ideas. T writes Ss' ideas on the board.</p>	<p><i>That means... I don't agree... I think that...</i></p>	<p>Brainstorming Synthesis Stating in own words Negotiation of meaning</p>	<p>Reading Speaking Listening</p>	3 m
#2	<p><b>Activity 5:</b> (Task) T issues Handout #0208b and asks Ss to pay attention to the example of paraphrasing provided. Then, T asks Ss to read the sentences and to write their own paraphrased versions. Then, T checks them with the class to verify that actual paraphrasing was applied (and not quotation, which will be addressed during next class.)</p>	<p><i>We can say the same thing like this... This means... I don't agree...</i></p>	<p>Paraphrasing Analysis Synthesis Stating in own words Negotiation of meaning</p>	<p>Reading Speaking Listening Writing</p>	10 m
#4, #6	<p><b>Activity 6:</b> (Post-Task) Ss discuss the difficulties they may have encountered during the task. T raises Ss' awareness in regard to the importance of distinguishing between paraphrasing and summarizing. T asks Ss to list the differences between these two strategies. Language focus: T can select some of the words Ss analyzed and emphasize vowel reduction. <b>ParAphrase- eIEmEnt - Abillty -resEArchEr- atOms - mATeriAls - chemicAI</b></p> <p>*****</p>	<p><i>I think this was easy. This is important because... We have to be careful with this... -Vowel reduction</i></p>	<p>Discriminating Analysis Synthesis Stating in own words</p>	<p>Speaking Listening Reading Pronunciation</p>	5 m

#7	<p><b>“BLITZ TASK”:</b> (Listening comprehension and expressing professional opinions) Ss will listen to a <i>60-Second Science</i> podcast that they will analyze and discuss. <b>Note:</b> Since this cycle seeks to re-create a real-life task, <b>T will not pre-teach any vocabulary, nor will provide the Ss with a transcription.</b> They are expected to extract meaning in a Social Constructivistic context. For this purpose, pairs will be formed by T with mixed proficiency levels in order to foster scaffolding. AT will actually time all activities and ring a small bell when each allotted period is over.</p>				Total time: 27 m
#7	<p><b>Blitz Activity 1:</b> (Pre-Task) T will provide Ss with the podcast's title: <i>Solar Powered Fuel Cells</i> and the word <b><i>electrolysis</i></b>. Ss will elicit their predictions regarding the newscast's contents. T will write these on the board.</p>	<p><i>This talks about...</i>  <i>The topic of this is...</i>  <i>This newscast is about...</i></p>	<p>Brainstorming (schemata activation)  Predicting  Stating in own words</p>	<p>Reading  Speaking  Listening</p>	2 m
#7	<p><b>Blitz Activity 2:</b> (Task 1):</p> <p>a. Ss will listen once to the complete podcast.</p> <p>b. Ss will listen again (they may note down some info) and comment what they understood with a partner.</p> <p>c. Ss will prepare a short summary (using their notes if necessary) and present it to the class.</p> <p>d. Ss will listen one more time to the podcast to confirm their summary against what they understood.</p>	<p><i>This talks about...</i>  <i>What do you think?</i>  <i>The main idea is...</i></p>	<p>Summarizing  Guessing meaning from context  Stating in own words  Negotiation of meaning</p>	<p>Listening  Speaking  Writing  Reading</p>	<p>1 m</p> <p>1 + 3 min.</p> <p>3 + 3 min.</p> <p>1 min.</p>
#7, #8	<p><b>Blitz Activity 3:</b> (Task 2): T will issue Handout 0208c and will hold a general discussion with the class. Ss will be able to express their interests, relate the topic to their field, and based on those, offer a professional opinion regarding the podcast.</p>	<p><i>I found _____ interesting because...</i>  <i>It is important because...</i>  <i>This isn't related to</i></p>	<p>Analysis  Synthesis  Stating in own words  Negotiation of meaning</p>	<p>Reading  Speaking  Listening</p>	8 min.

#7, #8	<p><b>Blitz Activity 4:</b> (Post-Task) Ss and T will comment on the difficulties they found. The words they missed and what could be done in that case (by transferring their reading skills about word-attack strategies.)</p> <p>*****</p>	<p><i>my field!</i></p> <p><i>I think this was easy.</i>  <i>This was not important because...</i>  <i>We have to be careful with this...</i></p>	<p>Analysis  Synthesis  Stating in own words</p>	<p>Speaking  Listening  Reading</p>	3 min.
#3	<p><b>Activity 7:</b> (Pre-Task) In the computer laboratory, T asks Ss to brainstorm and elicit their ideas about what an abstract is and what information it includes. T asks Ss, "How is writing an abstract important in your profession? What information does a an abstract include? How is it structured?" T writes Ss' ideas on the board.</p>	<p><i>An abstract includes...</i>  <i>Normally it refers to...</i>  <i>It is important because it...</i></p>	<p>Brainstorming  Synthesis  Stating in own words  Negotiation of meaning</p>	<p>Speaking  Listening  Reading</p>	5 min.
#3	<p><b>Activity 8:</b> (Task) T issues Handout #0208d and asks Ss to pay attention to the example of an abstract by examining its parts. In pairs, T asks Ss to read the article provided (<i>Capped carbon nanotubes as [...] couriers</i>) and to write their own abstract in pairs and to post it on the blog. Then, the whole class reads each pair's abstract and discusses them. T prompts, "Does each abstract include the parts analyzed in the previous activity?"</p>	<p><i>We should include this...</i>  <i>This information is important...</i>  <i>I don't agree...</i></p>	<p>Skimming  Summarizing  Analysis  Synthesis  Stating in own words  Negotiation of meaning</p>	<p>Reading  Speaking  Listening  Writing</p>	20 min.
#3, #6	<p><b>Activity 9:</b> (Post-Task) Ss discuss the difficulties they may have faced during the task. T restates Ss' ideas regarding the importance of abstracts in scientific literature. Language focus: T can select some of the words Ss that appeared in the article and emphasize vowel reduction.  <b>couriEr – methOd – resUlts – Objective – develOp – tumOUR – polYmEr – toluEne -</b></p>	<p><i>This is harder than it seems.</i>  <i>This was important because...</i>  <i>We have to be careful with this...</i></p>	<p>Analysis  Synthesis  Stating in own words</p>	<p>Speaking  Listening  Reading  Pronunciation</p>	5 min.

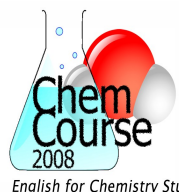
#5	<b>Homework:</b> As a take-home Quiz, T will ask Ss to select a short article (2-3 pages long) and to write an abstract for it along with a short professional opinion individually. Ss have to post their abstracts and comments on the ChemCourse's Blog by next Monday, and they must include the link where the actual article can be found. The article they choose must not have an abstract already.				5 min.
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### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.



## Lesson Plan # 0209



**Http://www.chemcourseucr.com**  
**Unit # 2 "Dealing with scientific literature"**

**Date:** October 8<sup>th</sup>, 2008

**Goal:** SWBAT *Read specialized literature in order to use it in their own projects.*

**Teacher (T):** Olmedo Bula  
**Assistant Teacher (AT):** Jenaro A. Díaz-Ducca

### **Specific Objectives: SWBAT**

1. Identify the different parts of an abstract from a chemistry article.
2. Use quoting correctly when dealing with chemistry literature.
3. Acknowledge sources correctly when dealing with chemistry literature.
4. Recognize the relevance of not committing plagiarism when dealing with chemistry literature.
5. Produce the realizations of the *ed* morpheme correctly when dealing with chemistry literature (review).

#	Procedures	Language	Strategies	Skills	Time
1	<b>Activity 1:</b> (Warm-up / Review) With the aid of handout # 0209a, T and Ss go over the different parts of an abstract (objective, method, results and conclusions) from a previous reading studied in class. T briefly comments on clues that can help Ss identify the different parts of an abstract.	<i>objective, method, results and conclusions</i> <i>The aim of...</i> <i>Some of the results...</i>	Scanning	Speaking, listening and reading	15 m
1	<b>Activity 2:</b> Ss are assigned one of the abstracts on the blog (hmk) to find the different parts of the abstract. Ss perform the task. T activates some useful expressions. Ss report to the class.	<i>The results show...</i> <i>We found...</i> <i>As a conclusion...</i>	Scanning	Reading, listening and speaking	10 m
2	<b>Activity 3:</b> (Pre-task) With the aid of handout # 0209b, T and Ss go over some examples of quoting and paraphrasing. Ss are asked to analyze the paragraphs to find the differences. Ss perform the task. Ss report to the class. T and Ss construct a definition of quoting. T writes the most important ideas on the board.	<i>Chemical formulas are symbols and numbers that represent a compound, for</i>	Paraphrasing and quoting	Reading, speaking and listening	10 m

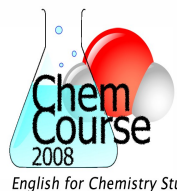
<p><b>Activity 4:</b> Ss are asked to focus on column B (handout # 0209b). Ss are to find common elements in the quoting examples. Ss report to the class. If necessary, T steps in to provide more elements and ideas (quotes, page number, author's name and verbs). Next, T writes the following questions on the board: <i>When do we quote? Why do we quote?</i> T and Ss share their ideas in a round-table discussion (raising awareness). Besides, T brings Ss' attention to ways of acknowledging sources.</p> <p><b>Activity 5:</b> (Main task) T establishes a real context/situation. T briefly explains the situation. Ss are to play the role of chemistry professors checking examples of quoting and source acknowledgement on Ss' papers/reports. Before getting engaged in the task, T demonstrates and models the activity with the aid of an example (corrections to student). T activates some useful expressions. T distributes the text and Ss perform the task. Ss report to the class. Next, Ss are to write an example of quoting acknowledging the source in the blog. T and Ss share their ideas with regard to these elements.</p> <p><b>Activity 6:</b> (Language focus) The class is divided into two teams. T provides Ss with a set of synonyms and concepts related to plagiarism orally. Ss are to guess the concept. Before getting engaged in the task, T provides Ss with an example of the activity. T and Ss perform the task. Next, T asks Ss: <i>What is plagiarism?</i> Ss and T share their ideas. With the aid of handout # 0209c, T and Ss go over a definition of plagiarism. Based on the same previous context / situation, Ss are to analyze if the given statements are examples of plagiarism and why (or why not). In pairs, Ss perform the task. Ss share their ideas with the rest of the class. T and Ss comment on the importance of not committing plagiarism.</p> <p><b>Activity 7:</b> Ss are asked to go back to the text used in the main task. T asks Ss if they can identify a common morpheme from the reading (ed). Ss report to the class. With the aid of handout # 0209d, T and Ss go over the statements in which the ed morpheme is found (reg. pasts, reg. past participles and ed adjectives). Ss are also asked to provide the pronunciation rule of the ed morpheme (review). T and Ss check the exercise orally. T encourages Ss to</p>	<p><i>example H2O (Castillo, 2008).</i></p> <p><i>quotes, page number, author name and verbs says, suggests, points out, states</i></p>	Quoting	Reading, speaking and listening	15 m
	<p><i>A quotation mark is needed...</i> <i>In line one...</i> <i>The student did not...</i> <i>We can see that...</i> <i>Another quotation mark is...</i></p>	Quoting Scanning	Reading, speaking, listening and writing	20 m
	<p><i>Steal, cheat, kidnap-plagiarism</i> <i>What is plagiarism?</i> <i>Plagiarism means to make use of someone else's work as though it is your own.</i></p>	Brainstorming	Listening, reading and speaking	20 m
	<p><i>reg. pasts, reg. past participles and ed adjectives</i></p> <p><i>/t/ /d/ /Id/</i></p>	Scanning	Reading, listening, speaking, writing and pronunciation	10 m

<p>provide examples. If necessary, T writes the pronunciation rule on the board. Ss are asked to scan the text to underline the words with the <i>ed</i> morpheme. Besides, Ss are asked to provide the grammatical function of the word and the pronunciation of the morpheme. T and Ss check the exercise on the board.</p> <p><b>Optional activity:</b> If necessary, Ss are to read some paragraphs of the text paying close attention to the pronunciation of the <i>ed</i> morpheme. T and Ss do some choral and individual repetition.</p> <p><b>Hmk:</b> Ss are asked to study for the final quiz of unit two.</p>	<p><i>Altered, called, modified, manipulated, achieved, resulted, allowed, increased, modified</i></p>		<p>Reading, speaking and pronunciation</p>	
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### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

## Lesson Plan # 0301



Http://www.chemcourseucr.com  
**Unit # 3 "At the Conference"**

Goal: SWBAT *Apply listening strategies in order to understand lectures in conferences or classes.*

**Task 1:** Taking down notes during a lecture (listening to monologue)

**Date:** October 13<sup>th</sup>, 2008

Teacher (T): Jenaro A. Díaz-Ducca  
 Assistant Teacher (AT): Olmedo Bula

### Specific Objectives: SWBAT

1. Predict the contents of a listening text as a strategy in order to determine the lecture's topic and contents.
2. Use note-taking in real time as a strategy in order to extract the main ideas from a lecture and a video.
3. Identify and discriminate correctly between main ideas and supporting ideas within a listening text.
4. Apply self-monitoring as a conscious strategy in order to identify which of the lecture's contents they understand perfectly and which they do not understand. (metacognitive – Rost, 2002)
5. Use the key vocabulary found in the lecture provided using correct pronunciation.

Specific Objective	Procedures	Language	Strategies	Skills	Time
#1	<b>Activity 1:</b> (Pre-Task) With the purpose of setting a meaningful context within the course and to introduce Unit 3, T asks Ss to discuss in pairs the importance of the reading strategies studied so far, and their applications in the field of Chemistry. T also asks Ss to brainstorm about how some or all of these strategies could be applied to live lectures or conferences, or to audiovisual materials as means to foster comprehension. T writes Ss' ideas on the board and emphasizes the importance of transferring reading strategies to listening activities in order to understand a speaker's monologue.	<i>Reading strategies can be used for...                      We need them for...                      They can be applied to videos when we...                      I agree / disagree.</i>	Brainstorming Recalling Analysis Stating in own words Negotiation of meaning	Speaking Listening Pronunciation	5-10 m
	<b>Activity 2:</b> (Warm-up) T asks Ss to predict a video's contents based only on the title, which T writes on the board: " <i>Effect Of Strong Acids And Alkalis.</i> " In pairs, Ss must brainstorm and guess what the	<i>Acids are substances that can...</i>	Brainstorming Recalling	Reading Speaking	5 m

	contents of the video will be. T prompts: <i>“What are alkalis? What are acids? What are their effects on metals, or on animal tissue?”</i> T writes some of the Ss' ideas on the board.	<i>Acids can corrode metals... Alkalis can dissolve flesh and bones...</i>	Schemata activation Stating in own words	Listening	
#5	<b>Activity 3:</b> (Pre-Task) T issues Handout #0301a with key vocabulary to discuss the video's contents. T asks Ss to listen and repeat the words. After answering any possible Ss' questions, T plays the video one time.	<i>Alkalis, acids. How do you pronounce..?</i>	Repetition Schemata activation	Reading Speaking Listening Pronunciation	6 m
#2	<b>Activity 4:</b> (Task) T asks Ss to take down notes in real time while the video is being played again. T plays the video and asks Ss to summarize in pairs and to state in their own words the contents of the video. Then, Ss present their summaries to the class. T issues Handout #0301b with scientist's notes on the <i>“Effect Of Strong Acids And Alkalis”</i> video for the Ss' reference (As an optional activity, T may allow a couple of minutes for Ss to read the notes.)	<i>Alkalis dissolve... Hydrochloric acid corroded the watch. The pig's trotters turned into soap...</i>	Summarizing Synthesis Stating in own words Negotiation of meaning	Writing Reading Speaking Listening	10 m
#2	<b>Activity 5:</b> (Post-Task) T asks Ss if taking down notes in real time was useful in order to summarize the video's contents. T prompts, <i>“Do you think taking down notes is necessary when you watch a longer video (with no replay) or when you attend a lecture/class? In what situations do you need to take notes in the field of Chemistry?”</i>	<i>Taking notes is useful. This is important because... Normally we write things down when...</i>	Analysis Synthesis Stating in own words Negotiation of meaning	Speaking Listening	6 m
#1	<b>Activity 6:</b> (Pre-Task) T announces that Ss will watch a short lecture only once, where Ss will have to take down notes in real time. T asks Ss to predict the video's contents based only on the title, which T writes on the board: <i>“AP Chemistry Podcast 1.3 Nuclear Chemistry Part 1.”</i> In pairs, Ss must brainstorm and guess what the contents of the video will be. T prompts: <i>“What is nuclear chemistry? What contents does the title suggest to you?”</i> T writes some of the Ss' ideas on the board.	<i>Nuclear chemistry refers to... Radioactivity is... I'm not sure about that...</i>	Brainstorming Predicting Schemata activation Stating in own words	Speaking Listening Reading	5-10 m

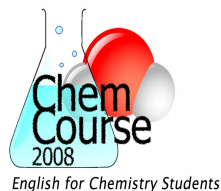
#2, #5	<b>Activity 7:</b> (Pre-Task) T asks Ss to take down notes in real time while the video is being played. T issues Handout #0301c and #0301d with note-taking skeleton outline and advice on how to write notes in real time. T asks Ss to read it and to verify they have understood the handout's structure, and the instructions for the task. T issues Handout #0301e with key vocabulary from the lecture in order to activate schemata. T asks Ss to repeat the words after him.	<i>What do you mean by...?</i> - Topic-related vocabulary	Schemata activation Repetition Stating in own words	Reading Speaking Listening Pronunciation	10 m
#2, #3, #4	<b>Activity 8:</b> (Task) T asks Ss to take down notes about the lecture's contents on Handout #0301c. Ss must follow the outline in order to discriminate between main ideas and supporting ideas. T also advises Ss to monitor their comprehension by marking with an asterisk (*) the ideas that they fail to understand completely during the lecture. Then, T plays video once.	<i>This talks about... The main ideas of this are...</i>	Note taking in real time Monitoring Discriminating Stating in own words	Listening Reading Writing	15 m
#2, #3,	<b>Activity 9:</b> (Post-Task) T asks Ss if taking down notes in real time was useful in order to determine the video's contents and to discriminate between main ideas and supporting ideas. T advises Ss to keep Handout #0301c because they will listen to Part II of the lecture during next class. T asks Ss to compare their outlines in pairs. <i>Did they write similar notes and did they classify the same ideas as main ideas and supporting ideas?</i> T can ask some Ss to read out loud their notes and classification.	<i>This was useful because... What did you write here? That's not a main idea! I found _____ interesting because...</i>	Summarizing Synthesis Discriminating Classification Stating in own words Negotiation of meaning	Reading Speaking Listening	15 m
#2, #4	<b>Activity 10:</b> (Post-Task) T also asks Ss about the importance of monitoring their own comprehension. T prompts, <i>"Does taking notes help you understand the lecture's contents? How many ideas did you mark with an asterisk? How does conscious self-monitoring contribute to improving your comprehension? Besides taking notes, what other strategies could you use to help you to extract a lecture's contents?"</i> Finally, T reinforces the importance of taking notes in order to understand a lecture since during the coming weeks Ss will be applying these strategies to actual conferences given by guest	<i>I think this was easy. I marked only this one... I wasn't sure about... We have to be careful with this...</i>	Monitoring Analysis Synthesis Stating in own words Negotiation of meaning	Speaking Listening Reading	10 min.

	chemistry professors in the classroom.			Reading Speaking Listening Writing	5-10 min.
	<p><b>Homework/ II Quiz:</b> As a take-home Quiz for Unit 2, T will ask Ss to select a short article (2-3 pages long) and to individually write an abstract for it along with a short professional opinion. Ss have to post their abstracts and comments on the ChemCourse's Blog by following Monday, and they must include the link where the actual article can be found. The article they choose must not already have an abstract. T issues Handout #0301f with corresponding instructions.</p>				

### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

## Lesson Plan # 0302



**Http://www.chemcourseucr.com**  
**Unit # 3 "At the Conference"**

Goal: SWBAT *Apply listening strategies in order to understand lectures in conferences or classes.*

### **Specific Objectives: SWBAT**

**Task:** Taking down notes during a lecture (listening to monologue)

**Date:** October 15<sup>th</sup>, 2008

Teacher (T): Olmedo Bula

Assistant Teacher (AT): Jenaro A. Díaz-Ducca

1. Use note-taking in real time as a strategy in order to extract the main ideas from a chemistry lecture.
2. Recognize the relevance of discourse markers when listening to a chemistry lecture (for an oral presentation).
3. Use predicting as a listening strategy to determine the content of a chemistry lecture.
4. Use expressions to give opinion and ask for clarification when listening to a chemistry lecture.
5. Recognize and use the filler *ah* when expressing an opinion about the content of chemistry lecture.

SO #	Procedures	Language	Strategies	Skills	Time
#1	<b>Activity 1:</b> (Warm-up) With the aid of handout #0302a, Ss go over a set of questions on note-taking/attending a lecture. In pairs, Ss discuss their ideas (raising awareness). Ss and T share their ideas in a round-table discussion. T emphasizes the importance of note-taking when listening to a lecture.	<i>How do you usually take notes?</i> <i>I usually...</i> <i>Generally...</i>	Brainstorming Recalling Schemata activation	Speaking Listening Reading	10 m
#2	<b>Activity 2:</b> (Pre-task) With the aid of handout #0302b, Ss go over a set of phrases with discourse markers. Ss are to analyze the phrases to see if they can deduce the function of discourse markers. Ss perform the task. Ss share their ideas with the rest of the class. T and Ss go over the phrases one more time. T emphasizes on the importance of discourse markers to organize a text and to indicate that the speaker is moving on to another part of the speech (discourse markers are to be referred to as " <i>organizational markers</i> " when working with Ss in order not to confuse	<i>I want to remind you that...</i> <i>In this particular session...</i> <i>Another example of...</i>	Brainstorming Recalling Schemata activation	Reading Speaking Listening	10 m



	them with metacognitive language).				
#3	<p><b>Activity 3:</b> Ss are asked to predict the content of the lecture “<i>AP Chemistry Podcast 1.3 Nuclear Chemistry Part 2</i>”. Ss watch and listen to the first minute of the lecture to come up with their predictions. Ss share their ideas with the rest of the class. T writes some of the Ss’ ideas on the board.</p> <p>With the aid of handout #0302c, T and Ss go over key vocabulary from the lecture (activate schemata). Ss and T do some choral and individual repetition. T clarifies any doubts.</p>	<p><i>Probably the lecture deals with...</i>  <i>To me...</i>  <i>I think that...</i>  <i>Nuclear reactions, fission reactions, decay, neutron, half life</i></p>	Predicting Schemata activation Repetition	Reading Speaking Listening Pronunciation	10 m
#1	<p><b>Activity 4:</b> (Task) T writes <i>Note-taking</i> on the board. Ss are asked to mention common things they do when taking notes. T encourages Ss to come up with ideas and suggestions on note-taking. T writes some of Ss’ ideas on the board. T and Ss comment on the importance of taking notes when attending a lecture/class.</p>	<p><i>Taking notes is useful.</i>  <i>This is important because...</i>  <i>Normally we write things down when...</i></p>	Summarizing Stating in own words	Reading Speaking Listening	10 m
#1 #2	<p><b>Activity 5:</b> Ss watch and listen to the short lecture “<i>AP Chemistry Podcast 1.3 Nuclear Chemistry Part 2</i>”. With the aid of handout #0302d, Ss are asked to take notes in real time while the video is being played. Ss are also asked to monitor their comprehension by writing discourse markers from the lecture. T plays the video (lecture) and Ss perform the task. In pairs, Ss compare their notes to find similarities and differences. Next, Ss are asked to report on the main and supporting ideas they found in the lecture. Then Ss are asked to provide the discourse markers from the lecture. T writes them on the board.</p>	<p><i>Nuclear chemistry refers to...</i>  <i>Calculations are...</i>  <i>Fission reactions...</i>  <i>I want to remind you that...</i>  <i>In this particular session...</i>  <i>Another example of...</i></p>	Synthesis Stating in own words Negotiation of meaning Monitoring Note taking in real time	Pronunciation Reading Speaking Listening Writing	20-25 m
#4	<p><b>Activity 6:</b> With the aid of handout #0302e, T and Ss go over some statements to express opinion and some questions to ask for clarification. Then Ss go over some ideas from the lecture to express opinions and ask for clarification (controlled practice). T and AT model the activity. Ss perform the task. T and Ss check the exercise orally.</p>	<p><i>It is relevant to mention that...</i></p> <p><i>I do believe that...</i></p>	Stating in own words	Speaking Listening  Reading	10 m

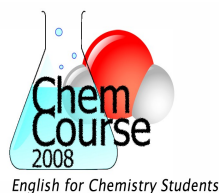
#4	<b>Activity 7:</b> In pairs, Ss are asked to go back to their notes from the lecture in order to express opinions and ask for clarification. Ss are given time to practice what they actually have to say before getting engaged in the task. T provides feedback as Ss practice. Next, Ss are asked to perform the task in front of the class.	<i>I do not think that... What do you mean by...? I do not clearly understand... What is it that you...?</i>	Stating in own words Negotiation of meaning	Pronunciation  Reading Speaking Listening Pronunciation	10 m
#5 #4	<b>Activity 8:</b> (Language focus) Ss listen to an excerpt of the lecture “AP Chemistry Podcast 1.3 Nuclear Chemistry Part 2”. With the aid of handout #0302f, Ss are to focus on the excerpt to identify the filler <i>ah</i> . Ss fill in the blanks. Ss perform the task and report to the class. T comments on the importance of fillers when speaking. Ss listen to the excerpt one more time to confirm the importance and usage of fillers. Next, T and AT demonstrate the common usage of fillers when speaking. T asks, <i>Do you think that nuclear chemistry can be dangerous?</i> AT provides his opinion emphasizing the use of the filler <i>ah</i> . Ss are asked to monitor the use of the filler by raising their hand every time they listen to the filler. Then in pairs, Ss are asked to express their opinion on the lecture using the previous useful expressions and the filler <i>ah</i> . Ss share their ideas with the rest of the class.	<i>Ah, well It is relevant to mention that... I do believe that... I do not think that... What do you mean by...? I do not clearly understand... What is it that you...?</i>	Discriminating Stating in own words Monitoring	Listening Reading Writing Speaking Pronunciation	15 m
	<b>Optional activity:</b> Ss listen to an excerpt of the lecture “AP Chemistry Podcast 1.3 Nuclear Chemistry Part 2”. Ss are asked to focus on the intonation pattern used in the lecture. Ss are to identify the pattern used in the lecture (falling). Ss report to the class. If necessary, T explains that statements receive a falling intonation. T and Ss drill. Ss listen to the excerpt one more time to confirm the intonation pattern.	<i>Fission reactions released a tremendous amount of energy.</i> ⚡	Discriminating	Reading Speaking Listening Writing Pronunciation	5 m
	<b>Homework/ II Quiz:</b> T reminds Ss about the take-home Quiz for Unit 2 (T asks s to select a short article to write an abstract for it along with a short professional opinion individually. Ss have to post their abstracts and comments on the ChemCourse's Blog by next Monday, and they must include the link where the actual article can be found. The article				

	they choose must not have an abstract already).				
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### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

## Lesson Plan # 0303



<http://www.chemcourseucr.com>  
**Unit # 3 "At the Conference"**

Goal: SWBAT *Apply listening strategies in order to understand lectures in conferences or classes.*

**Task 1:** Taking down notes during a lecture (listening to monologue)

**Date:** October 20<sup>th</sup>, 2008

Teacher (T): Jenaro A. Díaz-Ducca  
 Assistant Teacher (AT): Olmedo Bula

### Specific Objectives: SWBAT,

1. Apply predicting as a conscious strategy in order to activate schemata about a lecture's contents.
2. Extract the main ideas from a professor's lecture by taking notes in real time.
3. Consciously use discourse markers as a resource for understanding the lecture's structure. (metacognitive)
4. Ask questions of the lecturer as a strategy in order to clarify the lecture's contents.
5. Summarize the lecture's main ideas and rephrase them in their own words.
6. Express a professional opinion by paraphrasing the lecture's contents.
7. Write an academic abstract of the lecture's contents by summarizing its main ideas. (homework)

Specific Objective	Procedures	Language	Strategies	Skills	Time
#1	<b>Activity 1:</b> (Pre-Task) T writes on the board the title of the lecture to be delivered by Professor Mata, <i>"Biomass-derived fuels, polymers and chemicals. The case of Costa Rica."</i> In order to activate schemata, T will ask Ss to apply predicting as a strategy to brainstorm what they think the lecture will be about in pairs. T will issue handout #0303a where Ss can write down key vocabulary and jot down their ideas. Then, each pair will send a representative to the board who will write the pair's suggestions.	<i>I think the lecture will deal with... Professor Mata will talk about... When we say "biofuels" we mean...</i>	Brainstorming Predicting Stating in own words	Reading Speaking Listening Writing	6 m
#1	<b>Activity 2:</b> (Pre-Task) T will issue Handout #0303b with useful				6 m

	vocabulary from the actual lecture. T checks pronunciation with Ss by making them repeat after him the words in the handout and some of those written on the board (a dictionary may be necessary to verify all specialized terminology elicited in class.)	- <i>Topic-specific vocabulary</i> - <i>Vowel reduction</i> - <i>"-ed" morpheme</i>	Brainstorming Recalling Schemata activation Repetition	Reading Listening Speaking Pronunciation	
#2, #3, #4	<b>Activity 3:</b> (Pre-Task) T will review the phrases used to ask questions in order to clarify the meaning of a speaker's ideas. Then, T will briefly review the main points to keep in mind when taking down notes in real time, including the importance of discourse markers in order to follow a lecture's structure. For this purpose, T will issue Handout #0303c. Finally, T will issue Handout #0303d and will explain to Ss that for the lecture they will have to take down notes in real time (to extract the main ideas), pay attention to discourse markers, and think of at least two questions they would like to ask the lecturer at the end.	<i>For example...</i> <i>On the other hand...</i> <i>First...second...finally...</i> <i>What exactly do you mean by...?</i>	Recalling Analysis Note taking	Reading Listening Speaking	10 m
#2, #3, #4	<b>Activity 4:</b> (Task) Ss will listen to Professor Mata's lecture " <i>Biomass-derived fuels, polymers and chemicals. The case of Costa Rica.</i> " They will take down notes in order to extract the main ideas, notice discourse markers, and formulate two questions to clarify meaning.	<i>Biofuels can be produced from...</i> <i>On one hand...</i> <i>To conclude...</i> - <i>Topic-specific vocabulary</i>	Note taking Discourse marker analysis Analysis Extracting main ideas Formulating questions	Listening Reading Writing	25 m
#4	<b>Activity 5:</b> (Task) Ss will ask Professor Mata some of their questions regarding meaning or other aspects that they found interesting in his lecture. For this, they will apply the appropriate expressions studied so far.	<i>Excuse me, what do you mean by...</i> <i>This means that...</i> <i>Do you think that...?</i>	Paraphrasing Asking for clarification Synthesis Stating in own words Negotiation of meaning	Reading Speaking Listening	10 m
	<b>Activity 6:</b> (Post-Task) In pairs, Ss will compare their notes to verify if they wrote down the same points as main ideas. Then, each	<i>What did you write</i>	Summarizing Paraphrasing		10 m

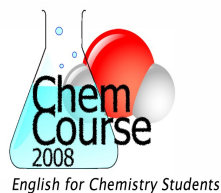
#5, #6	pair will summarize the lecture's ideas by paraphrasing them in writing. T will issue handout #0303e for this purpose. Then, pairs will present their summary to the class. THIS ACTIVITY MAY BE OPTIONAL IN CASE OF TIME CONSTRAINTS.	<i>there...?</i> <i>This is important because...</i> <i>Professor Mata talked about...</i> - Topic-specific vocabulary - Vowel reduction - "-ed" morpheme	Synthesis Stating in own words Negotiation of meaning	Reading Speaking Listening Pronunciation	
#5, #6	<b>Activity 7:</b> (Post-Task) In a general discussion, Ss will express a professional opinion regarding the contents of the lecture and the topic of biofuels in particular. In order to direct the discussion, T will issue handout #0303f for this purpose.	<i>I believe that...</i> <i>We need to remember that...</i> <i>Biofuels could be used for...</i> - Topic-specific vocabulary - Vowel reduction - "-ed" morpheme	Paraphrasing Synthesis Stating in own words	Reading Speaking Listening Pronunciation	10 m
#3	<b>Activity 8:</b> (Post-Task) In a general discussion, T will ask if following discourse markers helped them to follow the lecture's structure. T prompts, <i>What discourse makers did the lecturer use? Can you mention some of them?</i>	<i>Discourse markers are useful because...</i> <i>He mentioned...</i> <i>Professor Mata said...</i> - Vowel reduction - "-ed" morpheme	Summarizing Paraphrasing Synthesis Stating in own words Negotiation of meaning	Reading Speaking Listening Pronunciation	5 m
#3	<b>Activity 9:</b> (Post-Task) In a general discussion, T will ask Ss to reflect on the main difficulties they found during the task. T prompts, <i>Was there anything particularly problematic for you? What strategies did you apply in order to cope with the task? Was the experience of controlled listening to monologue useful for you? How will this be useful for you in the future?</i>	<i>I think that...</i> <i>We needed to...</i> <i>This is important because...</i> - Vowel reduction - "-ed" morpheme	Paraphrasing Synthesis Stating in own words	Speaking Listening Pronunciation	10 m

#5, #7	<b>Homework/ II Quiz:</b> Ss will have to post an abstract of the lecture's contents along with a professional comment on the course's blog for next Monday (October 27th.)				5 min.
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### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

# Lesson Plan # 0304



## ChemCourse 2008 Unit # 3 "At the Conference"

Goal: SWBAT Apply listening strategies in order to understand lectures in conferences or classes. / Make short oral presentations in conferences.

**Task:** Make an oral presentation / Listen to a presentation-lecture

**Date:** October 22<sup>nd</sup>, 2008

Teacher (T): Olmedo Bula  
Assistant Teacher (AT): Jenaro A. Díaz-Ducca

### Specific Objectives: SWBAT

1. Recognize the relevance of significant elements (purpose, attention getter, interest) in a chemistry-related, oral presentation.
2. Make a short oral presentation about a simple chemical process using significant elements (purpose, attention getter, interest).
3. Identify the filler *uh/ah* in a chemistry-related, oral presentation.
4. Transfer reading strategies to an audio text in order to extract its main ideas ("Blitz Task").
5. Express a professional opinion by commenting on an audio text ("Blitz Task").

SO #	Procedures	Language	Strategies	Skills	Time
#1	<b>Activity 1:</b> (Warm-up) In pairs and with the aid of handout # 0304a, Ss make a list of elements they take into consideration when making an oral presentation (raise awareness). T and Ss go over some useful expressions. Ss perform the task. Ss share their ideas with the rest of the class. T writes the most important ideas on the board.	<i>It is relevant to mention that...</i> <i>I do believe that...</i> <i>I think that...</i> <i>To me...</i>	Brainstorming Schemata activation	Speaking Listening Reading Writing	5 m
#1	<b>Activity 2:</b> (Pre-task) With the aid of handout # 0304b, T and Ss go over some hints to make an oral presentation. T comments on the importance of these elements when making an oral presentation (purpose, attention getter, gestures, nervousness, eye contact).	<i>Eye contact,</i> <i>audience, gestures,</i> <i>body language,</i> <i>purpose and</i> <i>attention getter</i>	Brainstorming Schemata activation	Reading Speaking Listening Pronunciation	15 m
	With the aid of handout # 0304c, T and Ss go over some key vocabulary from the recording (model). Ss and T do some choral and individual repetition. If necessary, T provides some sentences in context using the	<i>Neutron, nuclear</i> <i>reaction, fission,</i>	Schemata activation Repetition		

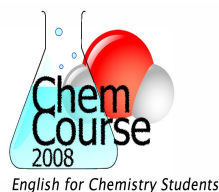


#1 #2	<p>key vocabulary. T clarifies any doubts.</p> <p><b>Activity 3:</b> With the aid of a recording, Ss listen to an oral presentation on <i>Fission Reaction</i> (similar task). T emphasizes the fact that this oral presentation is a model for them. T also reminds Ss they are to perform a similar task. Ss are asked to pay attention to the elements in the oral presentation previously studied. After listening to the oral presentation, T prompts, <i>What elements did you identify in the oral presentation?</i> Ss share their ideas with the rest of the class. T writes the most important ideas on the board.</p> <p>(Optional) T asks Ss, <i>What is your opinion about the oral presentation? Did you enjoy it?</i> (higher levels of processing, evaluation and appreciation) Ss share their ideas with the rest of the class.</p>	<p><i>reach, melt down</i></p> <p><i>Fission reactions... This is of... Fission is the type of... That neutron when... Fission means to... We can wind up with... A tremendous amount of energy...</i></p>	<p>Monitoring Summarizing</p> <p>Stating in own words</p>	<p>Speaking Listening Reading Pronunciation</p>	15 m
#2 #1	<p><b>Activity 4:</b> (Task) With the aid of handout # 0304d, Ss are asked to prepare an oral presentation based on the information from the simple chemical processes they brought (previously assigned). Ss are asked to focus on the significant elements previously studied. Ss are given time to practice what they actually have to say before getting engaged in the task. T and AT provide feedback as Ss practice. Next, Ss make their oral presentations in front of the class. T praises Ss' presentations. T comments on the importance of making appropriate and professional oral presentations using the elements studied so far (extemporaneous speaking). T encourages Ss to participate and provide their own ideas. Note: In case Ss do not bring information on a chemical process, T provides Ss with five simple chemical processes for them to choose one to work with in their oral presentations.</p>	<p><i>The main purpose of this... First, next, later, after that, finally Therefore... I want to remind you that... There are three reasons... For example... A major development... As a result...</i></p>	<p>Monitoring Stating in own words Summarizing Discourse markers analysis Attention getter</p>	<p>Pronunciation Reading Speaking Listening Writing</p>	20 m
# 3	<p><b>Activity 5:</b> (Language focus) Ss listen to an excerpt of the recording <i>Fission Reaction</i>. With the aid of handout #0304e, Ss are to focus on the excerpt to identify the filler <i>uh/ah</i>. Ss fill in the blanks. Ss perform the task and report to the class. T comments on the importance of fillers when speaking. Ss listen to the excerpt one more time to confirm the importance and usage of fillers. Next, T and AT demonstrate the</p>	<p><i>Uh, ah It is relevant to mention that... I do believe that... I think that...</i></p>	<p>Discriminating Stating in own words Monitoring</p>	<p>Speaking Listening Reading Pronunciation Writing</p>	20 m

#4 #5	<p>common usage of fillers when speaking. T asks, <i>Do you think that fission reaction can be dangerous?</i> AT provides his opinion emphasizing the use of the filler <i>uh/ah</i>. Ss are asked to monitor the use of the filler by raising their hand every time they listen to the filler. (Optional) Ss are asked to express their opinion on the oral presentation using the filler <i>uh/ah</i>. Ss share their ideas with the rest of the class.</p> <p><b>Optional activity:</b> Ss listen to an excerpt of the presentation <i>Fission Reaction</i>. Ss are asked to focus on the intonation pattern used in the presentation. Ss are to identify the pattern used in the presentation (falling). Ss report to the class. If necessary, T explains that statements receive a falling intonation. T and Ss drill. Ss listen to the excerpt one more time to confirm the intonation pattern.</p> <p>*****</p> <p><b>“BLITZ TASK”:</b> (Listening comprehension and expressing professional opinions) Ss listen to a <i>60-Second Science</i> podcast that they are to analyze and discuss. <b>Note:</b> Since this cycle seeks to re-create a real-life task, <b>T will not pre-teach any vocabulary, nor will provide the Ss with a transcription.</b> They are expected to extract meaning in a Social Constructivistic context. For this purpose, pairs are formed by T with mixed proficiency levels in order to foster scaffolding. AT actually times all activities and rings a small bell when each allotted period is over.</p> <p><b>Blitz Activity 1:</b> (Pre-Task) T provides Ss with the podcast's title: <i>How Green Was the Nobel Prize in Chemistry</i> and the word <i>jellyfish</i>. Ss are to elicit their predictions regarding the newscast's contents. T writes these on the board.</p> <p><b>Blitz Activity 2:</b> (Task 1):</p> <p>a. Ss listen once to the complete podcast.</p> <p>b. Ss listen again (they may note down some info) and comment on</p>	<p>To me...</p> <p><i>Fission reactions released a tremendous amount of energy.</i> ⚡</p>	Discriminating	Speaking Listening Pronunciation	5 m
					20 m
		<p><i>This talks about... The topic of this is... This newscast is about...</i></p>	Brainstorming Predicting	Speaking Listening	(5m)
		<p><i>This talks about...</i></p>	Summarizing Guessing meaning from context	Listening Speaking Writing	(5m)



## Lesson Plan # 0305



<http://www.chemcourseucr.com>

### Unit # 3 "At the Conference"

Goal: SWBAT *Apply listening strategies in order to understand lectures in conferences or classes.*

**Tasks:** 1. Taking down notes during a lecture; 2. Asking questions of a lecturer in order to clarify ideas; 3. Summarizing, re-stating main ideas, and reporting them orally to a colleague

**Date:** October 27<sup>th</sup>, 2008

Teacher (T): Jenaro A. Díaz-Ducca  
Assistant Teacher (AT): Olmedo Bula

### Specific Objectives: SWBAT,

1. Apply predicting as a conscious strategy in order to activate schemata about a lecture's contents.
2. Extract the main ideas from a professor's lecture by taking notes in real time.
3. Consciously use discourse markers as a resource for understanding the lecture's structure. (metacognitive)
4. Ask questions as a strategy in order to clarify the lecture's contents.
5. Express a professional opinion by summarizing and paraphrasing the lecture's contents.
6. Write an academic abstract of the lecture's contents by summarizing its main ideas. (homework)

Specific Objective	Procedures	Language	Strategies	Skills	Time
#1	<b>Activity 1:</b> (Pre-Task) T writes on the board the title of the lecture to be delivered by Professor Leitón, " <i>Occupational Health and Safety</i> ." In order to activate schemata, T will ask Ss to apply predicting as a strategy to brainstorm what they think the lecture will be about in pairs. T will issue handout #0305a where Ss can write down key vocabulary and jot down their ideas. Then, each pair will share their ideas with the rest of the class orally. T will write their suggestions on the board.	<i>I think the lecture will deal with...</i> <i>Professor Leitón is going to talk about...</i> <i>When we say "safety" we mean...</i>	Brainstorming Predicting Stating in own words	Reading Speaking Listening Writing	6 m

#1	<b>Activity 2:</b> (Pre-Task) T will issue Handout #0305b with useful vocabulary from the actual lecture. T checks pronunciation with Ss by making them repeat after him the words on the handout and some of those written on the board.	- <i>Topic-specific vocabulary</i> - <i>Vowel reduction</i> - <i>"-ed" morpheme</i>	Brainstorming Recalling Schemata activation Repetition	Reading Listening Speaking Pronunciation	6 m
#2, #3, #4	<b>Activity 3:</b> (Pre-Task) T will review the phrases used to ask questions in order to clarify the meaning of a speaker's ideas. Then, T will ask the Ss to summarize the importance both taking notes in real time and also the importance of discourse markers in order to follow a lecture's structure. For this purpose, T will re-issue Handout #0303c. Finally, T will issue Handout #0305c and will explain to Ss that for the lecture they will have to take down notes in real time (to extract the main ideas), pay attention to discourse markers, and think of at least two questions they would like to ask the lecturer at the end.	<i>For example...</i> <i>On the other hand...</i> <i>First...second...finally...</i> <i>What exactly do you mean by...?</i>	Recalling Analysis Note taking	Reading Listening Speaking	10 m
#2, #3, #4	<b>Activity 4:</b> (Task) Ss will listen to professor Leitón's lecture <b>"Occupational Health and Safety."</b> They will write down notes in order to extract the main ideas and examples of discourse markers. They will also formulate two questions to clarify meaning.	<i>Safety policies apply...</i> <i>On one hand...</i> <i>To conclude...</i> - <i>Topic-specific vocabulary</i>	Note taking Discourse marker analysis Analysis Extracting main ideas Formulating questions	Listening Reading Writing	25 m
#4	<b>Activity 5:</b> (Task) Ss will ask Professor Leitón some of their questions regarding meaning or other aspects that they found interesting in his lecture. For this, they will apply the appropriate expressions studied so far.	<i>Excuse me, what do you mean by...</i> <i>This means that...</i> <i>Do you think that...?</i>	Paraphrasing Asking for clarification Synthesis Stating in own words Negotiation of meaning Summarizing	Reading Speaking Listening	10 m
#5	<b>Activity 6:</b> (Post-Task) In pairs, Ss will compare their notes to	<i>What did you write</i>	Paraphrasing		10 m

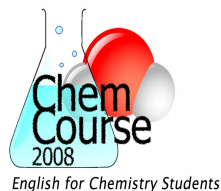
	verify if they wrote down the same points as main ideas. Then, each pair will summarize the lecture's ideas by paraphrasing them in writing. T will issue handout #0305d for this purpose. Then, each pair will present their summary to the class. THIS ACTIVITY MAY BE OPTIONAL IN CASE OF TIME CONSTRAINTS.	<i>there...?</i> <i>This is important because...</i> <i>Professor Leitón talked about...</i> - Topic-specific vocabulary - Vowel reduction - "-ed" morpheme	Synthesis Stating in own words Negotiation of meaning	Reading Speaking Listening Pronunciation	
#5	<b>Activity 7:</b> (Post-Task) In a general discussion, Ss will express a professional opinion regarding the contents of the lecture and the topic of occupational safety in particular. In order to direct the discussion, T will issue handout #0305e for this purpose.	<i>I believe that...</i> <i>We need to remember that...</i> <i>Safety procedures are needed because...</i> - Topic-specific vocabulary - Vowel reduction - "-ed" morpheme	Paraphrasing Synthesis Stating in own words	Reading Speaking Listening Pronunciation	10 m
#3	<b>Activity 8:</b> (Post-Task) In a general discussion, T will ask how following discourse markers helped them to follow the lecture's structure. T prompts, <i>What discourse makers did the lecturer use? What examples did you write down?</i>	<i>Discourse markers are useful because...</i> <i>He mentioned...</i> <i>Professor Mata said...</i> - Vowel reduction - "-ed" morpheme	Summarizing Paraphrasing Synthesis Stating in own words Negotiation of meaning	Reading Speaking Listening Pronunciation	5 m
#1, #2, #3, #4, #5	<b>Activity 9:</b> (Post-Task) In a general discussion, T will ask Ss to reflect on the main difficulties they found during the task. T prompts, <i>Was there anything particularly problematic for you? Why? What strategies did you apply in order to cope with the task? How was the experience of controlled listening to monologue useful</i>	<i>I think that...</i> <i>We needed to...</i> <i>This is important because...</i> - Vowel reduction - "-ed" morpheme	Paraphrasing Synthesis Stating in own words	Speaking Listening Pronunciation	10 m

#5, #6	<p><i>for you? How will this be useful for you in the future?</i></p> <p><b>Homework:</b> Ss will have to post a summary of the lecture's contents along with a professional comment on the course's blog for next Monday (November 3rd.)</p>				5 m
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### General observations and procedures:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

## Lesson Plan # 0306



**Http://www.chemcourseucr.com**  
**Unit # 3 "At the Conference"**

**Task:** Attending a lecture

**Date:** October 29<sup>th</sup>, 2008

**Goal:** SWBAT *Apply listening strategies in order to understand lectures in conferences or classes.*

**Teacher (T):** Olmedo Bula  
**Assistant Teacher (AT):** Jenaro A. Díaz-Ducca

### Specific Objectives: SWBAT

1. Use predicting as a listening strategy to determine the content of a chemistry lecture.
2. Recall keywords related to the content of a chemistry lecture.
3. Apply critical listening as a conscious strategy for understanding the content of a chemistry lecture.
4. Transfer reading strategies to an audio text in order to extract its main ideas ("Blitz Task").
5. Use expressions to give opinion and ask for clarification when listening to a chemistry lecture.

SO #	Procedures	Language	Strategies	Skills	Time
#1	<b>Activity 1:</b> (Warm-up) T writes the title of the lecture to be delivered by Professor Ogilvie, " <i>International System of Units, Symbols and Notation</i> ". Next, with the aid of handout #0306a and pairs, Ss are to apply predicting as a strategy to brainstorm about the content of the lecture. Ss are asked to write down key vocabulary and jot down their ideas. Next, Ss share their ideas with the rest of the class orally. T writes the most important ones on the board.	<i>It will be about... Probably... Professor Ogilvie might talk about... This lecture deals with...</i>	Brainstorming Predicting	Speaking Listening Reading Writing	10 m
#2	<b>Activity 2:</b> (Pre-task) The class is divided into two groups. Ss are asked to write down as many units of quantity (mass, volume, length, etc) as they know in two minutes. T models the activity and provides an example. Ss write their units on the board. T and Ss check these units.	<i>Kilogram, megabyte, centimeter, millimeter, milligram,</i>	Recalling Schemata activation	Reading Speaking Listening Writing Pronunciation	10 m



	<p>With the aid of handout #0306b, T and Ss go over common units and symbols. Ss are to listen to this key vocabulary during the lecture (main task). T checks pronunciation with Ss. T and Ss do some choral and individual repetition.</p>	<i>candela, second</i>			
#3	<p><b>Activity 3:</b> With the aid of handout #0306c, T explains Ss the main task. T and Ss go over the checklist (handout #0306c). T ensures Ss understand task and task instructions. Next, T brings Ss' attention to the purpose of the statements. T prompts, <i>What do these statements have in common? Are we simply listening to the lecture/taking notes?</i> Ss are given time to discuss and jot down their ideas. In a round-table discussion, T and Ss share their ideas. If necessary, T explains the concept of critical listening (Helgesen &amp; Brown, 2007). T comments on the importance of critical listening when attending a lecture.</p>	<p><i>What do these statements have in common? Are we simply listening to the lecture/taking notes?</i>  <i>Critical listening, purpose, eye contact, signal words, interest, attention getter</i></p>	Critical listening Brainstorming	Reading Speaking Listening	10 m
#4	<p>*****</p> <p><b>Note: This activity may be optional in case of time constraints.</b></p> <p><b>“BLITZ TASK”:</b> (Listening comprehension and expressing professional opinions) Ss listen to a <i>60-Second Science</i> podcast that they are to analyze and discuss. <b>Note:</b> Since this cycle seeks to re-create a real-life task, <b>T will not pre-teach any vocabulary, nor will provide the Ss with a transcription.</b> They are expected to extract meaning in a Social Constructivistic context. For this purpose, pairs are formed by T with mixed proficiency levels in order to foster scaffolding. AT actually times all activities and rings a small bell when each allotted period is over.</p>				20 m
	<p><b>Blitz Activity 1:</b> (Pre-Task) T provides Ss with the podcast's title: <i>How Green Was the Nobel Prize in Chemistry</i> and the word <i>jellyfish</i>. Ss are to elicit their predictions regarding the newscast's contents. T writes these on the board.</p>	<p><i>This talks about...  The topic of this...  This newscast is about...</i></p>	Brainstorming Predicting	Speaking Listening	(5m)

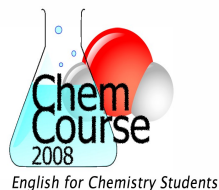
	<p><b>Blitz Activity 2:</b> (Task 1):</p> <p>a. Ss listen once to the complete podcast.  b. Ss listen again (they may note down some info) and comment on what they understood with a partner.  c. Ss prepare a short summary (using their notes if necessary) and present it to the class.  d. Ss listen one more time to the podcast to confirm their summary against what they understood.</p>	<p><i>This talks about...  What do you think?  The main idea is...</i></p>	<p>Summarizing  Guessing meaning from context  Stating in own words</p>	<p>Speaking  Listening  Writing</p>	<p>(5m)</p>
	<p><b>Blitz Activity 3:</b> (Task 2): T issues handout #0306d and holds a general discussion with the class. Ss are to express their interests, relate the topic to their field, and based on those, offer a professional opinion regarding the podcast.</p>	<p><i>I found...  interesting because it...  It is important because...  I think this was easy...  We have to be careful with...</i></p>	<p>Stating in own words  Negotiation of meaning</p>	<p>Speaking  Listening</p>	<p>(5m)</p>
	<p><b>Blitz Activity 4:</b> (Post-Task) Ss and T comment on the difficulties they found (words they missed and what could be done in that case - by transferring their reading skills about word-attack strategies).</p> <p>*****</p>		<p>Analysis  Synthesis</p>	<p>Speaking  Listening</p>	<p>(5m)</p>
#3	<p><b>Activity 4:</b> (Task) Ss listen to professor Ogilvie's lecture "<i>International System of Units, Symbols and Notation</i>". With the aid of handout # 0306c, Ss do critical listening (activity in which students not only have to listen but think about what is behind what they are hearing) by checking the statements, answering questions and taking notes.</p>	<p><i>millimeter, milligram, critical listening, purpose, eye contact, signal words, interest</i></p>	<p>Critical listening  Note-taking  Summarizing</p>	<p>Speaking  Listening  Reading  Writing  Pronunciation</p>	<p>30 m</p>
#5	<p><b>Activity 5:</b> Ss are to ask professor Ogilvie some of their questions regarding meaning or other aspects they found interesting about his lecture. Besides, Ss are to express their opinion about professor Ogilvie's lecture. For this, Ss are to use the appropriate expressions so far.</p>	<p><i>It is relevant to mention that...  What exactly do you mean by...?</i></p>	<p>Asking for clarification  Expressing an opinion</p>	<p>Speaking  Listening  Reading  Pronunciation</p>	<p>10 m</p>

#3	<p><b>Activity 6:</b> (Post-task) Ss are asked to express a professional opinion regarding the content of the lecture. T prompts, <i>Do you agree or disagree with the lecture's ideas?</i> Next, in a general discussion, T and Ss go over the checklist (handout #0306c) to reflect on the different elements from professor Ogilvie's lecture. T comments on the importance of critical listening when attending a lecture.</p> <p><b>Hmk:</b> Ss are to post a summary of the lecture's content along with a professional comment on the course's blog.</p>	<i>One can say that...</i> <i>We need to remember that...</i> <i>As far as I'm concerned...</i> <i>It is usually the case that...</i>	Expressing an opinion Stating in own words	Speaking Listening Reading Pronunciation	10 m
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### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.

## Lesson Plan # 0401



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com)

### Unit # 4 "At the Showcase"

Goal: SWBAT *Make short oral presentations in conferences about scientific processes.*

**Task 1:** Speaking in public following the different stages for an oral presentation about a product or process.

**Date:** November 3<sup>rd</sup>., 2008

Teacher (T): Jenaro A. Díaz-Ducca  
Assistant Teacher (AT): Olmedo Bula

### Specific Objectives: SWBAT,

1. Identify key presentation techniques studied so far such as using attention getters, conveying confidence, and providing organizational markers based on last class' lecture.
2. Apply key presentation techniques and strategies such as rephrasing, using attention getters, conveying confidence and providing organizational markers correctly to the oral presentation of a chemical process.
3. Provide peer correction and feedback about their classmates' presentations regarding oral strategies and correct use of language (critical listening.)
4. Discriminate and produce correctly the phonemes /iy/ and /I/ in a communicative environment.
5. Transfer reading strategies to an audio text in order to extract its main ideas. ("Blitz Task")
6. Express a professional opinion by commenting on an audio text. ("Blitz Task")

Specific Objective	Procedures	Language	Strategies	Skills	Time
#1	<b>Activity 1:</b> (Pre-Task) T asks Ss to give examples of the main techniques ("hints") for making oral presentations studied in previous class. T writes Ss' suggestions on the board and issues Handout #0401a. T reviews these aspects with Ss. T tells Ss that they will apply these points to analyze Dr. Ogilvie's lecture from last Wednesday.	<i>We talked about...</i> <i>We have to keep eye contact...</i> <i>We should finish with a "high note"...</i>	Brainstorming Recalling Stating in own words	Reading Speaking Listening	5 m

#1	<b>Activity 2:</b> (Task) In pairs, Ss analyze last lecture based on the techniques (“hints”) provided in Handout #0401a, giving examples to illustrate their impressions. Then, each pair shares their views with the rest of the class. T listens and makes sure Ss have covered all important points (“hints”) and offered appropriate examples.	<i>The professor didn't use attention getters. He used discourse markers...</i>	Recalling Summarizing Paraphrasing Giving examples	Speaking Listening Reading	10 m
#2	<b>Activity 3:</b> (Pre-Task) T explains the concept of rephrasing to Ss, based on Handout #0401a. T asks Ss to give examples of tasks in which rephrasing is needed and useful in Chemistry. If necessary, T prompts Ss in order for them to express and grasp the importance of rephrasing when they are trying to explain a scientific process, and when it is vital to make sure that the audience has understood a point clearly. T announces to Ss that they will apply rephrasing and the “hints” studied so far to explain a laboratory process.	<i>I use rephrasing when I... If I have to explain something...</i>	Schemata activation Brainstorming Paraphrasing	Reading Listening Speaking	5 m
#2	<b>Activity 4:</b> (Pre-Task) T writes on the board, “wine distillation” and asks Ss to brainstorm about the process, by providing examples of names of laboratory equipment and verbs needed to explain this process. T plays video “Wine Distillation” to Ss and then issues Handout #0401b. T tells Ss to read the handout silently and then asks if they have any questions regarding vocabulary or pronunciation. T goes over vocabulary in bold type and asks Ss to listen and repeat the words after him.	<i>For distillation we need... How do you pronounce this word? - Topic-specific vocabulary</i>	Schemata activation Brainstorming Recalling Analysis Repetition	Reading Speaking Listening Pronunciation	10 m
#2	<b>Activity 5:</b> (Pre-Task) T tells Ss to work in pairs and to prepare a 3-minute presentation explaining the process of wine distillation applying rephrasing when needed and the presentation techniques studied. Ss must rehearse their speeches in front of one of the instructors in order to receive feedback before the actual presentation.	<i>This process is important because... Let me rephrase this... - Discourse markers.</i>	Synthesis Using Discourse markers Rephrasing Stating in own words	Reading Speaking Listening Pronunciation	10 m

#2, #3	<b>Activity 6:</b> (Task) Before the presentations begin, T issues Handout #0401c and tells Ss that they will provide feedback to their peers by filling in the form anonymously. In pairs, Ss explain the process in front of the class by applying rephrasing and the “hints.” T will monitor and write down observations on the application of the target strategies. He will also note down linguistic mistakes.	<i>Distillation is used in...</i> <i>This is important because...</i> - <i>Topic-specific vocabulary</i> - <i>Vowel reduction</i>	Rephrasing Synthesis Stating in own words Negotiation of meaning Summarizing	Speaking Listening Pronunciation Reading	6-10 m
#3	<b>Activity 7:</b> (Post-Task) All pairs receive their feedback forms filled in and read them. Then, in a general discussion, each pair briefly mentions which target aspects they considered to have addressed correctly, which aspects were insufficiently addressed (based on their own impressions and their classmates' feedback.) OPTIONAL ACTIVITY(Language focus): T writes on the board incorrect phrases and mispronounced words and the whole class offers corrections and/or suggestions.	<i>We forgot to say...</i> <i>I believe that...</i> <i>We need to remember that...</i> - <i>Topic-specific vocabulary</i>	Monitoring Giving feedback Synthesis Stating in own words Negotiation of meaning	Speaking Listening Pronunciation Reading Writing	6-10 m
#4	<b>Activity 8:</b> (Pre-Task) T writes on the board, “ <i>This</i> ” and “ <i>These</i> ,” and “I’m living now” and “I’m leaving now.” T asks Ss what's the difference in pronunciation between the two sets. Then, T asks, “ <i>How is correct and precise pronunciation important for you as professional chemists?</i> ” T tells Ss that for this purpose they will engage in a short pronunciation practice of phonemes / iy / and / I /.	<i>We need to be precise because...</i> <i>I don't know.</i> <i>This is pronounced as...</i> - / iy / vs. / I /	Brainstorming Schemata activation Stating in own words Negotiation of meaning	Reading Speaking Listening Pronunciation	2 m
#4	<b>Activity 9:</b> (Task) T issues Handout #0401d and goes over Parts I and II with Ss. He answers any questions that may arise. T issues Handout #0401e. Then, in pairs, T asks Ss to fill in the blanks with the appropriate phoneme and to monitor their partners for the correct pronunciation and to respectfully correct them if necessary.	<i>I think that...</i> <i>How do you say that?</i> <i>Can you repeat that?</i> <i>You didn't say that!</i> - / iy / vs. / I /	Analysis Repetition Monitoring Negotiation of meaning	Reading Writing Speaking Listening Pronunciation	5 + 8 m

	***** <b>OPTIONAL TASK CYCLE</b> *****				
#5	<b>Blitz Activity 1:</b> (Pre-Task) T will provide Ss with the podcast's title: <i>How Green was the Nobel Prize in Chemistry</i> and the word <i>jellyfish</i> . Ss will elicit their predictions regarding the newscast's contents. T will write these on the board.	<i>This talks about...</i> <i>The topic of this is...</i> <i>This podcast is about...</i>	Brainstorming (schemata activation) Predicting Stating in own words	Reading Speaking Listening	3 m
#5	<b>Blitz Activity 2:</b> (Task 1):  a. Ss will listen once to the complete podcast.  b. Ss will listen again (they may note down some info) and comment what they understood with a partner.  c. In pairs, Ss will prepare a short summary (using their notes if necessary) and present it to the class.  d. Ss will listen one more time to the podcast to confirm their summary against what they understood this time.	<i>This talks about...</i> <i>What do you think?</i> <i>The main idea is...</i>	Summarizing Guessing meaning from context Stating in own words Negotiation of meaning	Listening Speaking Writing Reading	1 m  3 min.  5 min.  1 min.
#5, #6	<b>Blitz Activity 3:</b> (Task 2): T will issue Handout 0401f and will hold a general discussion with the class. Ss will be able to express their interests, relate the topic to their field, and based on that, offer a professional opinion regarding the podcast.	<i>I found _____ interesting because...</i> <i>It is important because...</i>	Analysis Synthesis Stating in own words Negotiation of meaning	Reading Speaking Listening	7 min.
#5, #6	<b>Blitz Activity 4:</b> (Post-Task) Ss and T will comment on the difficulties they found. The words they missed and what could be done in that case (by transferring their reading skills about word-attack strategies.)	<i>I think this was easy.</i> <i>This was not important because...</i> <i>We have to be</i>	Analysis Synthesis Stating in own words	Speaking Listening Reading	2 min.

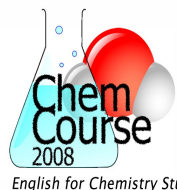
	<b>Homework:</b> T issues Final Course Evaluation Form and asks Ss to complete it and to bring it to class on Wednesday.	<i>careful with this...</i>			1 min.
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### General observations and procedures:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic problems.



## Lesson Plan # 0402



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com)  
Unit # 4 "At the Showcase"

Goal: SWBAT *Make short oral presentations in conferences about chemical processes.*

**Task:** Making an oral presentation about a chemical process.

**Date:** November 5<sup>th</sup>, 2008

**Teacher (T):** Olmedo Bula  
**Assistant Teacher (AT):** Jenaro A. Díaz-Ducca

### Specific Objectives: SWBAT

1. Recall keywords related to the content of a chemical process.
2. Make a short oral presentation about a chemical process.
3. Apply critical listening as a conscious strategy for evaluating the content of a chemical process presentation.
4. Identify and use adverbs of sequence when making an oral presentation about a chemical process.
5. Transfer reading strategies to an audio text in order to extract its main ideas ("Blitz Task").
6. Paraphrase ideas when making an oral presentation about a chemical process.

SO #	Procedures	Language	Strategies	Skills	Time
#1	<b>Activity 1:</b> (Warm-up) T shows Ss a couple of pictures related to two different chemical processes. Ss are to guess the names of the processes. With the aid of handout #0402a, Ss are to brainstorm about the processes by providing examples of equipment and verbs needed to explain these processes. Ss share their ideas with the rest of the class. T writes the most important ideas on the board.	<i>Aluminium and Bromine, A Chemical Drink, cup, stirrer, spatula, thick walled test tube, earthenware pot</i>	Brainstorming Predicting	Speaking Listening Reading Writing	10 m
#1	<b>Activity 2:</b> (Pre-task) With the aid of handout #0402b, T and Ss go over some key vocabulary. T and Ss check the correct pronunciation of the words. T and Ss do some choral and individual repetition. If necessary, T clarifies any doubts with regard to the meaning of the words by providing examples. Next, Ss are to read the sentences in order to fill in the blanks with the appropriate word. T and Ss check the exercise orally.	<i>solution, turns, place, bubble Place a few Potassium Permanganate crystals in the bottom of the cup.</i>	Schemata activation	Speaking Listening Reading Writing Pronunciation	10 m

SO #	Procedures	Language	Strategies	Skills	Time
#2	<b>Activity 3:</b> T plays the videos “ <i>Aluminium and Bromine</i> ” and “ <i>A Chemical Drink</i> ”. Ss are asked to watch the videos paying close attention to the process. T explains that these videos are a model for them in terms of the process. T reminds Ss that they are to use these videos as visual aids when making their oral presentations about a process.	<i>Aluminium and Bromine and A Chemical Drink</i>	Recalling Analysis		10 m
#2 #6	<b>Activity 4:</b> (Task) With the aid of handout #0402c and in pairs, Ss are asked to prepare an oral presentation in which they are to explain a chemical process (each pair is to explain a different chemical process). Ss are asked to focus on rephrasing when making the presentation. Ss are given time to practice what they actually have to say before getting engaged in the task. T and AT provide feedback as Ss practice (T and AT are to focus on rephrasing, s-v agreement, pronunciation, and word choice errors). Next, Ss make their oral presentations in front of the class. T praises Ss’ presentations. T comments on the importance of making appropriate and professional oral presentations using the elements studied so far (extemporaneous speaking). T encourages Ss to participate and provide their own ideas.	<i>First, place a few Potassium Permanganate crystals in the bottom of the cup. Then fill it with water up to a third. In other words... That means... Let me explain this... Let me rephrase that...</i>	Summarizing Note-taking Paraphrasing Stating in own words	Speaking Listening Reading Writing Pronunciation	20 m
#3	Before the presentations begin, T issues handout #0402d and tells Ss they are to do critical listening in order to provide feedback to their peers by filling in the forms anonymously.		Critical listening	Listening Writing Reading	
#3	<b>Activity 5:</b> (Post-task) Pairs receive their feedback forms. Ss are given a few minutes to read them. Then in a general discussion, each pair briefly mentions which target aspects they considered to have addressed correctly, which aspects were insufficiently addressed (based on their own impressions and their classmates' feedback). T writes incorrect phrases and mispronounced words on the board and the whole class offers corrections and/or suggestions (optional activity).	<i>It is relevant to... Eye contact was... We did not include... It was important that...</i>	Analysis Expressing an opinion	Reading Speaking Listening Pronunciation	10 m



	<p><b>Blitz Activity 2:</b> (Task 1):</p> <p>a. Ss listen once to the complete podcast.  b. Ss listen again (they may note down some info) and comment on what they understood with a partner.  c. Ss prepare a short summary (using their notes if necessary) and present it to the class.  d. Ss listen one more time to the podcast to confirm their summary against what they understood.</p>	<p><i>This talks about...  What do you think?  The main idea is...</i></p>	<p>Summarizing  Guessing meaning from context  Stating in own words</p>	<p>Speaking  Listening  Writing</p>	<p>5m</p>
	<p><b>Blitz Activity 3:</b> (Task 2): T issues handout #0402e and holds a general discussion with the class. Ss are to express their interests, relate the topic to their field, and based on those, offer a professional opinion regarding the podcast.</p>	<p><i>I found...  interesting because it...  It is important because...  I think this was easy...  We have to be careful with...</i></p>	<p>Stating in own words  Negotiation of meaning</p>	<p>Speaking  Listening</p>	<p>5m</p>
	<p><b>Blitz Activity 4:</b> (Post-Task) Ss and T comment on the difficulties they found (words they missed and what could be done in that case - by transferring their reading skills about word-attack strategies).</p> <p>*****</p>		<p>Analysis  Synthesis</p>	<p>Speaking  Listening</p>	<p>5m</p>

### Observations:

- As usual, topics are reviewed in oral and written form using the board. Examples are elicited by the students when necessary.
- When reviewing rules, it's very important to verify that all students have understood the structures. It's easier to ask them for the rule first before writing it on the board.
- For new vocabulary, pronunciation and meaning are explained.
- All instructions are explained first, and then modeled to the students (with their assistance).
- For group activities, teacher monitors production and makes sure the target structures and vocabulary are used correctly.
- After performing the task and/or practice, T provides feedback with regard to the most significant linguistic features.



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Aug. 11<sup>th</sup>, 2008 - **Handout #0101a**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

### *Getting to know your classmates...*

**Instructions:** Find the person whose name you received and ask him/her about:

- |  |   |
|--|---|
| 1- Current year in the Chemistry major           | 4- Two things he/she does at work         |
| 2- Field of Chemistry that he/she likes the most | 5- Any other thing you consider important |
| 3- Place where he/she works                      |   |

** Some Useful Expressions... Can you think of more phrases? **	
- Where do you _____?	- What do you _____?
- I'm sorry, I didn't get that.	- Pardon me?
- Can you repeat that, please?	- Excuse me?
-	-
-	-



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Aug. 11<sup>th</sup>, 2008 - **Handout #0101a**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

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| 3- Place where he/she works                      |   |

** Some Useful Expressions... Can you think of more phrases? **	
- Where do you _____?	- What do you _____?
- I'm sorry, I didn't get that.	- Pardon me?
- Can you repeat that, please?	- Excuse me?
-	-
-	-



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| 2- Field of Chemistry that he/she likes the most | 5- Any other point you consider important |
| 3- Place where he/she works                      |   |

** Some Useful Expressions... Can you think of more phrases? **	
- Where do you _____?	- What do you _____?
- I'm sorry, I didn't get that.	- Pardon me?
- Can you repeat that, please?	- Excuse me?
-	-
-	-



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Aug. 11<sup>th</sup>, 2008 - **Handout #0101b**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

### *Getting to know your classmates...*

**Instructions:** Write the name of your classmate and take notes here.

**Hint:** Keep in mind the "Useful Expressions" on **Handout #0101a**.

**My classmate's name:** \_\_\_\_\_

**Notes:**



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Aug. 11<sup>th</sup>, 2008 - **Handout #0101b**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

### *Getting to know your classmates...*

**Instructions:** Write the name of your classmate and take notes here.

**Hint:** Keep in mind the "Useful Expressions" on **Handout #0101a**.

**My classmate's name:** \_\_\_\_\_

**Notes:**



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Aug. 11<sup>th</sup>, 2008 - **Handout #0101b**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

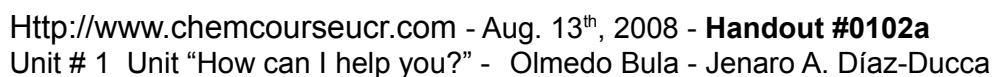
### *Getting to know your classmates...*

**Instructions:** Write the name of your classmate and take notes here.

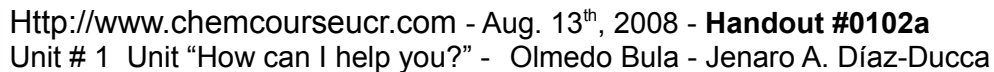
**Hint:** Keep in mind the "Useful Expressions" on **Handout #0101a**.

**My classmate's name:** \_\_\_\_\_

**Notes:**



**Framework B:** In pairs comment what you think he should have done and write the correct steps on the right column. Then, check it with the video and add other information if necessary.

[illegible]

**Framework B:** In pairs comment what you think he should have done and write the correct steps on the right column. Then, check it with the video and add other information if necessary.

[illegible]



**Spelling:** In groups of three, write a common English name / word beginning with each letter of the alphabet in the corresponding blank. Try to avoid strange, confusing, or ambiguous words.

A as in:	J as in:	S as in:
B as in:	K as in:	T as in:
C as in:	L as in:	U as in:
D as in:	M as in:	V as in:
E as in:	N as in:	W as in:
F as in:	O as in:	X as in:
G as in:	P as in:	Y as in:
H as in:	Q as in:	Z as in:
I as in:	R as in:	



**Spelling:** In groups of three, write a common English name / word beginning with each letter of the alphabet in the corresponding blank. Try to avoid strange, confusing, or ambiguous words.

A as in:	J as in:	S as in:
B as in:	K as in:	T as in:
C as in:	L as in:	U as in:
D as in:	M as in:	V as in:
E as in:	N as in:	W as in:
F as in:	O as in:	X as in:
G as in:	P as in:	Y as in:
H as in:	Q as in:	Z as in:
I as in:	R as in:	





**Student A:** Taking turns, one student will spell one of the names on the left column to the other student who will write it on the right column. Afterwards, they will compare their results.

Matthew Mungle	
Brian Relyea	
Randy Culberhouse	
Steven Light-Orr ( - is read as: "hyphen")	
Eugene McCarthy	
Todd Wolcott	

**Student B:** Taking turns, one student will spell one of the names on the left column to the other student who will write it on the right column. Afterwards, they will compare their results.

Robert Deschaine	
Glynna Grimala	
Jeffrey Wilhoit	
Ann Scibelli	
Kiel Gnebba	
Stephen Bashaw	

**Student A:** Taking turns, one student will spell one of the names on the left column to the other student who will write it on the right column. Afterwards, they will compare their results.

Matthew Mungle	
Brian Relyea	
Randy Culberhouse	
Steven Light-Orr ( - is read as: "hyphen")	
Eugene McCarthy	
Todd Wolcott	

**Student B:** Taking turns, one student will spell one of the names on the left column to the other student who will write it on the right column. Afterwards, they will compare their results.

Robert Deschaine	
Glynna Grimala	
Jeffrey Wilhoit	
Ann Scibelli	
Kiel Gnebba	
Stephen Bashaw	



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Aug. 13<sup>th</sup>, 2008 - **Handout #0102d**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**Telephone script:** In pairs, take turns as operator and customer and use the following script.

Operator: Good (morning/afternoon). Chemistry Supplies, this is \_\_\_\_\_ (choose one from **Handout #0102c**)

Customer: Hi. Who is this?

Operator: \_\_\_\_\_

Customer: How do you spell that ?

Operator: (A as in Andy...)

Customer: Thank you. I would like to speak to Mr. Erlenmeyer.

Operator: May I ask who's calling?

Customer: My name is \_\_\_\_\_ (choose one from **Handout #0102c**)

Operator: How do you spell that?

Customer: \_\_\_\_\_

Operator: Thank you, Mr./Mrs. \_\_\_\_\_. One moment please...



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Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**Telephone script:** In pairs, take turns as operator and customer and use the following script.

Operator: Good (morning/afternoon). Chemistry Supplies, this is \_\_\_\_\_ (choose one from **Handout #0102c**)

Customer: Hi. Who is this?

Operator: \_\_\_\_\_

Customer: How do you spell that ?

Operator: (A as in Andy...)

Customer: Thank you. I would like to speak to Mr. Erlenmeyer.

Operator: May I ask who's calling?

Customer: My name is \_\_\_\_\_ (choose one from **Handout #0102c**)

Operator: How do you spell that?

Customer: \_\_\_\_\_

Operator: Thank you, Mr./Mrs. \_\_\_\_\_. One moment please...

### *Useful expressions / Asking for repetition-clarification*

- I'm sorry, I didn't hear you.	- Excuse me?
- Can you repeat that, please?	- Excuse me, you said _____?
- I'm sorry, could you repeat that?	- Please, repeat that.
- I'm sorry, I didn't get that.	- You said _____?
-	-
<b>** Can you think of other expressions? **</b>	

### *Useful expressions / Asking for and expressing existences of stock supplies*

- Do you have any _____?	- Yes, we do. How much/many do you need?
- Do you sell _____?	- No, we don't carry that product.
- I need to buy some _____.	- I'm sorry, we don't have any _____ left.
- I'm looking for _____	- There is some _____. There isn't any _____.
- I'd like to buy _____.	- I'm sorry, there isn't any _____ left.
- I need to get a _____.	- One moment please.
- I need a _____.	- Yes, we have _____.
- What is the price of _____?	- There isn't any _____ but we have _____.
- How much does _____ cost?	- It costs _____. It is _____. The price is _____.
-	-
<b>** Can you think of other expressions? **</b>	

### *Useful expressions / Asking for confirmation*

- OK. Let me confirm that. You need _____.	- Let's see. You asked for _____.
- OK. Let's check that again. You want _____.	- You ordered _____.
-	-
<b>** Can you think of other expressions? **</b>	

**Student A:** You will play the customer who needs to buy FIVE of the following items. Call the Delivery Company Operator and find out if they have any of these products left and what the price is for each. Afterwards, switch roles with Student B. Remember to use the useful expressions chart.

4 gallons of Sodium p-sulfophenyl methallyl ether (SPME)	1 gallon of Thioglycolic acid
1 liter of Ferrous chloride, solution	200 tablets of Fentanyl Citrate (Analgesic)
4-Chloro-2-nitrobenzoic acid (4,2-CNBA)	20 gallons of Toluene
2 bottles of Sodium aluminate, solution	3-Phenylserinol
2-Chloro-4-nitrobenzoic acid (2,4-CNBA)	1 litter of Zirconium suspended in a liquid

**Student A:** You will play the customer who needs to buy FIVE of the following items. Call the Delivery Company Operator and find out if they have any of these products left and what the price is for each. Afterwards, switch roles with Student B. Remember to use the useful expressions chart.

4 gallons of Sodium p-sulfophenyl methallyl ether (SPME)	1 gallon of Thioglycolic acid
1 liter of Ferrous chloride, solution	200 tablets of Fentanyl Citrate (Analgesic)
4-Chloro-2-nitrobenzoic acid (4,2-CNBA)	20 gallons of Toluene
2 bottles of Sodium aluminate, solution	3-Phenylserinol
2-Chloro-4-nitrobenzoic acid (2,4-CNBA)	1 litter of Zirconium suspended in a liquid

**Student B:** You will be the phone Operator that answers the customer's call. Provide the information that the customer needs related to stock supplies. Afterwards, switch roles with Student A. Remember to use the useful expressions chart.

**Hints:**

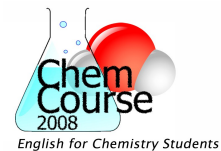
- Consult the Cambrex Catalogue to determine if the product is in stock or not.
- If you don't understand the name of the product, ask the customer to spell it for you.
- Be polite.
- Remember to use the customer's name.

## Miskatonic Chemical & Pharmaceutical Products & Services



Product Name	Product Price	Existence
Sodium p-sulfophenyl methallyl ether (SPME)	150 dollars	18 gallons
Fentanyl Citrate (Analgesic)	30.000 colones	75 tablets
Thioglycolic acid	656 dollars	25 gallons
Toluene	10.700 colones	10 gallons
Phenylserinol	22.000 colones	None
Zirconium suspended in a liquid	56.000 colones	15 liters
Ferrous chloride, solution	5.500 colones	None
4-Chloro-2-nitrobenzoic acid (4,2-CNBA)	750 colones	None
Sodium aluminate, solution	125 dollars	1 bottle
2-Chloro-4-nitrobenzoic acid (2,4-CNBA)	1250 colones	None

## Recording Script



PO-Good morning Chemical Supplies. This is Olmedo, how can I help you?

C-Good morning. I need to buy two gallons of Ferrous chloride, solution. How much do they cost?

PO-One moment please. Excuse me sir, what's your name?

C- Robert Deschaine.

PO-How do you pronounce that?

C- It's *Robert Deschaine*.

PO-OK, Mr. Deschaine, The price is 29.000 colones each gallon.

C-Can you send me a quotation via e-mail?

PO-Sure, what's your e-mail account?

C-It's [starlink@gmail.com](mailto:starlink@gmail.com).

PO-Let me confirm that. You need two gallons of Ferrous chloride, solution. Is that correct?

C-Yes, that's correct.

PO-How do you spell your last name?

C-It's D as in Danny, E as in Elizabeth, S as in Susana, C as in Charles, H as in Hank, A as in Amanda, I as in Isaac, N as in no and E as in Elizabeth.

PO-OK, we will send you the quotation right away. Good bye.

C-Good bye and thank you.

## Intonation Pattern Sentences (activity 7)

1. Can you repeat that?
2. How much is it?
3. What is the price of it?
4. Do you sell Zirconium?
5. How many do you need?
6. Can you repeat that one more time?

**I- Units of measurement:** *This is a brief pronunciation guide for the main units of measurement in both the Metric and the Customary U.S. System. Use these questions and answers when inquiring about a piece of equipment.*

<b>How big/small is it? It is_____.</b>	<b>What are its dimensions?</b>
<b>What's its length? How long is it?</b>	<b>It is _____cm. long.</b>
<b>What's its height? How high is it?</b>	<b>It is _____cm. high.</b>
<b>How wide is it? What's its width?</b>	<b>It is _____mm. wide.</b>
<b>How deep is it?:</b>	<b>It is_____cm. deep.</b>
Length: \ lɛŋ(k)ə \ Height: \ hayt \	Width: \ wldə \
Depth: \ dɛpəl \	Meter: \ 'miy-tər \
centi(meter): \ 'sɛn-tə-miy-tər \	milli(meter): \ 'ml-lə-miy-tər \
Foot-feet: \ fʊt \ - \ fiyt \	Inch-inches: \ Intʃ \ - \ 'Intʃlz \
<b>How heavy / light is it?</b>	<b>It weighs _____ kilograms.</b>
Weight: \ 'weyt \	Gram: \ græm \
kilo(gram): \ 'kiy-low-græm \	Milligram:
<b>What's its capacity?</b>	<b>What's the graduation?</b>
Capacity: \ kə-'pæ-sə-tiy \	Liter (litre): \ 'liy-tər \
Centi(litre):	Cubic (centimeter): \ 'kyuw-blk \
Temperature: \ 'tɛm-prə -tʃər \	Degree: \ dl-'griy \
Celsius: \ 'sɛl-siy-əs \	
kg/cm <sup>2</sup> : "kilograms per square centimeter"	Per: \ pər \ Square: \ skwər \
400 x 395 x 151 cm: "400 by 395 by 151 cms."	By: \ bay \
Other:	Other:

**II- Ways to express ignorance in a professional way:** *These are some professional expressions you can use in order to be honest with your customer if you don't know the answer to his/her question. Make sure that he/she understands that you will look for an answer as soon as you can.*

- That's a good question, let me...	- Honestly I don't know the answer to that, but...
- Let me ask my supervisor...	- One moment please, let me find out for you...
- I don't have that information here, but...	- I can find that information in a moment...
- Just a moment, please, let me...	- I will have an answer for you in a minute...
- Please stay on the line while I ask...	- Don't hang up, please...
Other:	Other:



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Aug. 20<sup>th</sup>, 2008 - **Handout #0104b**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**Student A:** You will play the customer/laboratory representative who needs to buy THREE of the following items. Call the Chemical Supplier Operator and find out if they have these pieces of equipment in stock and inquire about their principal features, but specially about the specific characteristics pointed out in each case below. Then, switch roles with Student B.

**Analytical balance.** Capacity: 300g. Price.

**General purpose centrifuge.** Digital speed meter. Price.

**PH meter.** Temperature range: up to 100°C. Price.

**Environmental chamber.** Chamber dimensions: height: 1000 mm, width: 700 mm, depth: 600 mm. Price.

**Orbital shaker.** Tray dimensions: 450 x 400 cm. Price.

**Table top autoclave.** Sterilizing temperature: 130°C. Price.

**Oven.** Chamber dimensions: height: 600 mm, width: 700 mm, depth: 500 mm. Price.

**Viscometer.** Range of viscosity. Price.

**Spectrophotometer.** Range in nm. Price.



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Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**Student B:** You will be the Chemical Supplier Operator that answers the customer's call. Provide the information that the customer needs related to equipment and describe its main features and characteristics. Then, switch roles with Student A.

### Hints:

- Consult the sample brochures to determine if there is a piece of equipment that will meet the customer's needs. If you don't know the answer to a question, tell the customer.
- If you don't understand the name of an item, ask the customer to spell it for you.
- Try to give both positive and affirmative answers: you choose which alternative pieces of equipment may meet the customer's needs if what he/she inquires about is not in stock.
- Invent a price for each product if the catalogue does not include it.
- Put the customer on hold if necessary while you look for the requested information.

** Some Useful Expressions... Can you think of more phrases? **	
- I need to buy a...	- Yes, we have some of those...
- I am looking for a...	- We have some _____ left.
- Do you sell / carry _____?	- Yes we do. / No, we don't carry _____.
-	-
-	-



**INSTRUCTIONS:** As a chemical supplier you are asked to complete the following chart. Fill in the blanks with the corresponding specifications according to stock supplies existences.

### Analytical Balance

# of items \_\_\_\_\_

Price \_\_\_\_\_

Capacity 300g

Weight \_\_\_\_\_

Brand \_\_\_\_\_

Length \_\_\_\_\_

### Orbital Shaker

# of items \_\_\_\_\_

dimensions \_\_\_\_\_

price \_\_\_\_\_

capacity \_\_\_\_\_

Brand Texas Instruments

Width \_\_\_\_\_

### Environmental Chamber

# of items \_\_\_\_\_

Price \_\_\_\_\_

Height \_\_\_\_\_

Width 700 mm

Depth \_\_\_\_\_

Brand \_\_\_\_\_

### Chemical Oven

# of items \_\_\_\_\_

Price \_\_\_\_\_

Temp. Range \_\_\_\_\_

Height \_\_\_\_\_

Capacity \_\_\_\_\_

Weight 20 kg

INSTRUCTIONS: Carefully study the following conversation. Fill in the blanks with a logical and coherent answer/response. Use the expressions studied in class. Use as many modals as you can. Next, practice the conversation with your partner in an oral way.

S-Good morning InterChem Supplies. This is Gabriela, how can I help you?

C-Good morning. I'm looking for Ferrous Chloride Solution.

S-\_\_\_\_\_

C-I need to buy 200 gallons. How much does each gallon cost?

S-\_\_\_\_\_

C-Ok. Can you send me a quotation?

S-\_\_\_\_\_

C-It's [ldeschaine@gmail.com](mailto:ldeschaine@gmail.com).

S-Excuse me, how do you spell that?

C-\_\_\_\_\_

S-And what is your name sir?

C-\_\_\_\_\_

S-\_\_\_\_\_

C-Yes, that's correct. I also need the specifications of an environmental chamber? Do you sell that?

S-\_\_\_\_\_

C-How heavy is it? And what is its capacity?

S-\_\_\_\_\_

C-\_\_\_\_\_

S-It's 300 dollars. This is a high performance machine Mr. Deschaine. I do believe you should buy it. Trek Systems is an outstanding brand indeed.

C-\_\_\_\_\_ Can I pay with a personal check?

S-I'm sorry to inform you Mr. Deschaine that we do not take personal checks. We do take all major credit cards.

C-\_\_\_\_\_

S-May I have your credit card number?

C-\_\_\_\_\_

S-Oh yes, we can send you the chamber via courier.

C-Please send it to the following place: University of Costa Rica, Ciudad Universitaria Rodrigo Facio, School of Chemistry, Academic Department. When can you send it?

S-\_\_\_\_\_

C-Ok, I'll be expecting the chamber.

S-Thank you so much Mr. Deschaine. With regard to the Ferrous Chloride Solution, I am going to send you the quotation right away.

C-\_\_\_\_\_

S-Good bye Mr. Deschaine. Looking forward to hearing from you.



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Aug. 27<sup>th</sup>, 2008 - **Handout #0106a**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**\*\* Useful Ways to Express your Opinions \*\***

- <i>What do you think?</i>	- <i>I think that... / I believe that...</i>
- <i>Is that right?</i>	- <i>I am (not) sure about that.</i>
- <i>Do you agree with me?</i>	- <i>I agree. / I disagree (with you.)</i>
- <i>Excuse me, but...</i>	- <i>I don't think you're right.</i>
-	-



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Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**\*\* Useful Ways to Express your Opinions \*\***

- <i>What do you think?</i>	- <i>I think that... / I believe that...</i>
- <i>Is that right?</i>	- <i>I am (not) sure about that.</i>
- <i>Do you agree with me?</i>	- <i>I agree. / I disagree (with you.)</i>
- <i>Excuse me, but...</i>	- <i>I don't think you're right.</i>
-	-



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Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**\*\* Useful Ways to Express your Opinions \*\***

- <i>What do you think?</i>	- <i>I think that... / I believe that...</i>
- <i>Is that right?</i>	- <i>I am (not) sure about that.</i>
- <i>Do you agree with me?</i>	- <i>I agree. / I disagree (with you.)</i>
- <i>Excuse me, but...</i>	- <i>I don't think you're right.</i>
-	-



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Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**\*\* Useful Ways to Express your Opinions \*\***

- <i>What do you think?</i>	- <i>I think that... / I believe that...</i>
- <i>Is that right?</i>	- <i>I am (not) sure about that.</i>
- <i>Do you agree with me?</i>	- <i>I agree. / I disagree (with you.)</i>
- <i>Excuse me, but...</i>	- <i>I don't think you're right.</i>
-	-



**INSTRUCTIONS:** In pairs, read the following conversation. Fill in the blanks with logical and coherent answers. Use the expressions studied in class. Use as many modals as you can. Next, practice the conversation with your partner in an oral way.

1. **Customer Service Representative:** Good morning. InterChem Supplies. This is Gabriela, how can I help you?

**Customer:** Good morning. I'm looking for Ferrous Chloride Solution.

**CSR:** Yes, sir. May I have your name please?

5. **C:** \_\_\_\_\_

**CSR:** Excuse me, how do you spell your last name?

**C:** \_\_\_\_\_.

**CSR:** Thank you. \_\_\_\_\_?

**C:** I need to buy 200 liters. How much does each liter cost?

10. **CSR:** \_\_\_\_\_

**C:** OK. Can you send me a quotation?

**CSR:** Right away, sir. \_\_\_\_\_?

**C:** It's sdeschaine@gmail.com.

**CSR:** Thank you. (Is there ) Anything else (you need)?

15. **C:** Yes, I am also looking for an environmental chamber. Do you sell those?

**CSR:** Yes, we carry the EW-37710-00 by Cole-Parmer.

**C:** \_\_\_\_\_?

**CSR:** It's 5 cubic meters. It is 120 cm L x 65 cm W x 55 cm H.

**C:** Great. \_\_\_\_\_?

20. **CSR:** It costs \$12,500 dollars. This is a high performance machine Mr. Deschaine. I really believe you should buy it. Cole-Parmer is an outstanding brand indeed.

**C:** \_\_\_\_\_. Please include it in the quotation. Can I pay with a personal check drawn against a U.S. bank?

**CSR:** Mr. Deschaine, I'm afraid that we do not accept personal checks. However, we accept all

25. major credit cards.

**C:** \_\_\_\_\_

**CSR:** May I have your credit card number?

**C:** Of course. It is \_\_\_\_\_?

**CSR:** Oh yes, we can send you the chamber via courier. It is not in stock right now but it will be

30. available in 76 days approximately.

**C:** I think I will buy the Ferrous Chloride now. Please send it to the following address: School of Chemistry, University of Costa Rica, San José, Costa Rica, Central America. When can you send it?

**CSR:** \_\_\_\_\_

35. **C:** OK, thank you. I'll be expecting the solution soon.

**CSR:** Thank you very much Mr. Deschaine. We're looking forward to hearing from you, good bye.



Http://www.chemcourseucr.com - Aug. 27<sup>th</sup>, 2008 - **Handout #0106c**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**Student A:** You **will** play the university/laboratory representative who **has to** buy TWO of the following items. You **must** check Chennai Labs at <http://www.chennailaboratories.com> and post a message on our Blog so one of their Customer Service agents **can** answer your inquiries.

If you think they have what you need, you **can** agree to buy the equipment using a credit card. These are the pieces of equipment you are looking for. You **should** ask for the specifications you see below and for their price. Then, switch roles with Student B.

**Oven.** Chamber dimensions: height: 700 mm, width: 500 mm, depth: 500 mm. Price.

**Orbital shaker.** Tray dimensions: 500 x 400 cm. Price.

**General purpose centrifuge.** Digital speed meter. Price.

**Table top autoclave.** Sterilizing temperature: up to 125°C. Price.

**Spectrophotometer.** Range up to 1000 nm. Price.

**PH meter.** Temperature range: up to 120°C. Price.

**Environmental chamber.** Chamber dimensions: height: 1000 mm, width: 800 mm, depth: 500 mm. Price.

**Viscometer.** Wide range of viscosity. Program control by PC. Price.

**Petroleum testing equipment.** Pressure aging vessel (PAV). Price.

**Analytical balance.** Capacity: 500g. Price.



Http://www.chemcourseucr.com - Aug. 20<sup>th</sup>, 2008 - **Handout #0104c**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**Student B:** You **will** be the Chemical Supplier Representative(s) for Chennai Laboratories that **has to** answer the customer e-mails. Check <http://www.chennailaboratories.com> and provide the information that the customer needs related to equipment and describe its main features and characteristics. You **may** invent the prices. Then, switch roles with Student A.

#### Hints:

- Consult the website to determine if there is a piece of equipment that **will** meet the customer's needs. If you don't know the answer to a question, you **have to** tell the customer!
- You **should** try to give both positive and affirmative answers: you choose which alternative pieces of equipment may meet the customer's needs if what he/she inquires about is not in stock!
- You **must** invent a price for each product if the catalogue does not include it!
- Use as many modals as you **can** !



## **"Sample E-mails August 26th, 2008"**

### **a. Customer's inquiry:**

Dear Sirs,

My name is Robert Deschaine and I am interested in buying some of your products.

I need the following:

10 gallons of toluene

15 liters of zirconium (suspended in a liquid)

50 gallons of ferrous chloride, solution

600 tablets of fenatyl citrate

Can you send me a quotation via e-mail? I also need the specifications of an analytical balance (300g) and an orbital shaker. Can I pay with a personal check? Thank you.

Regards,

R. Deschaine (Ph.D.)  
Miskatonic University

### **b. CS Representative's reply:**

Dear Mr. Deschaine,

I am glad to inform you that we can supply you with all the products you need. Attached you will find the quotation you requested. With regards to the equipment specifications, here they are:

Analytical balance: capacity 300g -tray dimensions 20 cm. x 25 cm. - weight 1 kg.

Orbital shaker: tray dimensions 45 x 40 cm.-weight 2 kg - Color: black/brown

I am sorry to inform you  
that we do not accept personal checks. However, we accept all major credit cards.

Looking forward to hearing from you.

Best Regards,

Herbert West  
CS Representative  
InterChemical Supplies

### Exercise 1

INSTRUCTIONS: Watch and listen to the following video. Then number the steps the host mentions from 1 to 4 in the order they appear.

\_\_\_\_\_ Say thank you      \_\_\_\_\_ Be courteous      \_\_\_\_\_ Do Follow up      \_\_\_\_\_ Be helpful

### Exercise 2

INSTRUCTIONS: Watch and listen to the video one more time. Check whether the following statements are true or false. Write T for true and F for false.

- \_\_\_\_\_ There are other possibilities besides the ones mentioned in the video that you can consider when providing good customer service.
- \_\_\_\_\_ There is no need to use common sense with your customers.
- \_\_\_\_\_ Your business knowledge is not that important.
- \_\_\_\_\_ Your customer brings profitability to your business.
- \_\_\_\_\_ You shouldn't make a promise you can't keep.

### Exercise 1

INSTRUCTIONS: Watch and listen to the following video. Then number the steps the host mentions from 1 to 4 in the order they appear.

\_\_\_\_\_ Say thank you      \_\_\_\_\_ Be courteous      \_\_\_\_\_ Do Follow up      \_\_\_\_\_ Be helpful

### Exercise 2

INSTRUCTIONS: Watch and listen to the video one more time. Check whether the following statements are true or false. Write T for true and F for false.

- \_\_\_\_\_ There are other possibilities besides the ones mentioned in the video that you can consider when providing good customer service.
- \_\_\_\_\_ There is no need to use common sense with your customers.
- \_\_\_\_\_ Your business knowledge is not that important.
- \_\_\_\_\_ Your customer brings profitability to your business.
- \_\_\_\_\_ You shouldn't make a promise you can't keep.

INSTRUCTIONS: Carefully study and analyze the following phrases.

### *Time expressions*

<i>Monday morning</i>	<i>in three hours</i>	<i>on Tuesday</i>	<i>at 3.00pm</i>
<i>Tuesday afternoon</i>	<i>in one week</i>	<i>on Tuesday morning</i>	<i>at 11:00 in the morning</i>
<i>tomorrow evening</i>	<i>in two days</i>	<i>on time</i>	<i>at noon</i>
	<i>in the morning</i>		<i>at night</i>
	<i>in September</i>		<i>at the restaurant / your company</i>

### *Useful expressions to set up an appointment*

<i>Can I call you tomorrow morning?</i>	<i>Sure, no problem.</i>
<i>I need to see the equipment working. Can we get together on Tuesday at 3:00pm?</i>	<i>Of course.</i>
<i>Let's get together at noon.</i>	<i>That's a good idea.</i>
<i>Why don't we check the equipment next week?</i>	<i>Sorry, I won't be in town.</i>
<i>How about getting together in two days to see the equipment working?</i>	<i>Yes, we need to evaluate the equipment first.</i>
<i>How about tomorrow?</i>	<i>No, that's too soon.</i>
<i>Could I call you tomorrow afternoon to confirm if you are buying the ph meter?</i>	<i>Please do that.</i>
<i>Do you mind if I send you an e-mail on Tuesday to know your final decision?</i>	<i>No, not at all.</i>
-	-
<b>** Can you think of other expressions? **</b>	





**Student A:** You will play the role of a customer who gets a call from a chemical supplier to set up an appointment. Answer his/her questions and agree on a date to see the equipment working and/or a demonstration of the equipment. Remember to use the time expressions and useful expressions in the chart.



**Student A:** You will play the role of a customer who gets a call from a chemical supplier to set up an appointment. Answer his/her questions and agree on a date to see the equipment working and/or a demonstration of the equipment. Remember to use the time expressions and useful expressions in the chart.



**Student A:** You will play the role of a customer who gets a call from a chemical supplier to set up an appointment. Answer his/her questions and agree on a date to see the equipment working and/or a demonstration of the equipment. Remember to use the time expressions and useful expressions in the chart.



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Sep. 1<sup>st</sup>, 2008 - **Handout #0107c**  
Unit # 1 "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**Student B:** You will play the role of a chemical supplier who is calling a potential client to set up an appointment to define a sale. Be ready to offer your potential client a demonstration of the equipment she/he would like to buy. Keep in mind you want to set up an appointment to define the sale. Remember to use the time expressions and useful expressions in the chart.



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Sep. 1<sup>st</sup>, 2008 - **Handout #0107c**  
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INSTRUCTIONS: Carefully study and analyze the following incomplete sentences. Fill in the blanks with the corresponding preposition: *AT*, *IN*, or *ON*.

- \* Can we get together tomorrow \_\_\_\_\_ 3:00pm?
- \* Let's get together \_\_\_\_\_ noon.
- \* How about getting together \_\_\_\_\_ two days to see the equipment working?
- \* Do you mind if I send you an e-mail \_\_\_\_\_ Tuesday to know your final decision?
- \* Let's meet \_\_\_\_\_ Friday \_\_\_\_\_ 9:00 \_\_\_\_\_ the morning.

INSTRUCTIONS: Carefully study and analyze the following incomplete sentences. Fill in the blanks with the corresponding preposition: *AT*, *IN*, or *ON*.

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- \* Let's meet \_\_\_\_\_ Friday \_\_\_\_\_ 9:00 \_\_\_\_\_ the morning.

## Recording script



C: Good morning.

CS: Good morning. Can I talk to Mr. Deschaine?

C: This is Mr. Deschaine.

CS: My name is Olmedo on behalf of InterChem Supplies. Mr. Deschaine, I am calling to confirm if you are buying the PH meter.

C: Oh hi! Listen, we have not taken the decision yet. We would like to see the equipment working.

CS: Sure, no problem. We can give a demonstration at you company for your convenience. How about tomorrow morning?

C: Mmm, I don't think so. I am going to be traveling.

CS: Why don't we schedule the demonstration for next week? Does that work for you?

C: That's great. Let's get together on September 15<sup>th</sup> at 9:00am.

CS: Ok. Do you mind if call you on September 14<sup>th</sup> to confirm the appointment?

C: Not, at all. Please do that. Good bye and thank you.

CS: Thank *you* Mr. Deschaine. See you next week.



## I. Glossary for "Dealing with Tough Customers" video:

**Reiterate:** to repeat or summarize again.

"to **map out a path** to successfully help them:" to find a way.

"Don't **match their tone**": speak in the same tone of voice as the others do.

**Business demeanor:** professional attitude.

**More than likely:** very probably.

**Policies and procedures:** particular regulations and steps that a company or institution follows.

**Rewarding:** giving a prize or reward for a good action.

**Loyalty:** fidelity to an idea or institution.

As long as you **stay on top** of those: As long as you keep updated and attentive to those topics.

## II. Glossary for "The Evil Manager" video:

**Reservation:** reservation for a room in a hotel.

"I think my wife packed the **sinter rock** in there." sinter, a type of calcareous rock.

**Bellman:** employee who carries the guests' suitcases in a hotel.

**Bride and groom:** woman and man who have just married.

**Wedding reception:** party thrown for the bride and groom's relatives and friends.

**"Ramps and special entrances:"** architectural modifications made in order to allow easy access for physically disabled people.

**Unknowingly:** Without knowing (knowledge.)

"That failure can come back to **haunt** them:" to worry or affect them.

**Work force:** group of people who work for a company.

INSTRUCTIONS: Carefully study and analyze the following phrases.

### *Time expressions*

<i>Monday morning</i>	<i>in three hours</i>	<i>on Tuesday</i>	<i>at 3.00pm</i>
<i>Tuesday afternoon</i>	<i>in one week</i>	<i>on Tuesday morning</i>	<i>at 11:00 in the morning</i>
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	<i>in the morning</i>		<i>at night</i>
	<i>in September</i>		<i>at the restaurant / your company</i>

### *Useful expressions to set up an appointment*

<i>-Can I call you tomorrow morning?</i>	<i>-Sure, no problem.</i>
<i>-I need to see the equipment working. Can we get together on Tuesday at 3:00pm?</i>	<i>-Of course.</i>
<i>-Let's get together at noon.</i>	<i>-That's a good idea.</i>
<i>-Why don't we check the equipment next week?</i>	<i>-Sorry, I won't be in town.</i>
<i>-How about getting together in two days to see the equipment working?</i>	<i>-Yes, we need to evaluate the equipment first.</i>
<i>-How about tomorrow?</i>	<i>-No, that's too soon.</i>
<i>-Could I call you tomorrow afternoon to confirm if you are buying the ph meter?</i>	<i>-Please do that.</i>
<i>-Do you mind if I send you an e-mail on Tuesday to know your final decision?</i>	<i>-No, not at all.</i>
-	-
-	-
-	-
<b>** Can you think of other expressions? **</b>	



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Sept. 3 rd. , 2008 - **Handout #0108b**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**Student A:** This is a continuation of the e-mail exchanges (blog entries and comments) you wrote during the first Computer Laboratory session last week.

Again, you will play the role of a Customer who is interested in buying equipment from Super Laboratories. As a potential buyer, the Chemical Supplier Representative(s) from Super will contact you in order to set up an appointment with you. Answer his/her e-mail messages, and using questions and answers, agree on a date to see the equipment working and/or a demonstration of the equipment. Remember to use the time expressions and useful expressions in **Handout #0107b** from last class.



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Sept. 3 rd. , 2008 - **Handout #0108b**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**Student B:** This is a continuation of the e-mail exchanges (blog entries and comments) you wrote during the first Computer Laboratory session last week.

Again, you will play the role of the Chemical Supplier Representative(s) for Super Laboratories in order to set up an appointment with your Customer (potential buyer). Send him/her e-mail messages, and using questions and answers, agree on a date to see the equipment working and/or a demonstration of the equipment. Remember to use the time expressions and useful expressions in **Handout #0107b** from last class.



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Sept. 3 rd. , 2008 - **Handout #0108b**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**Student A:** This is a continuation of the e-mail exchanges (blog entries and comments) you wrote during the first Computer Laboratory session last week.

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[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Aug. 27<sup>th</sup>, 2008 - **Handout #0106a**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

**\*\* Useful Ways to Express your Opinions \*\***

- What do you think?	- I think that... / I believe that...
- Is that right?	- I am (not) sure about that.
- Do you agree with me?	- I agree. / I disagree (with you.)
- Excuse me, but...	- I don't think you're right.
-	-



[Http://www.chemcourseucr.com](http://www.chemcourseucr.com) - Aug. 27<sup>th</sup>, 2008 - **Handout #0106a**  
Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

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Unit # 1 Unit "How can I help you?" - Olmedo Bula - Jenaro A. Díaz-Ducca

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**INSTRUCTIONS:** Look at the following pictures. Write as many things as you know about these pictures. Be ready to report to the class.

The diagram consists of five central images, each connected to a large empty oval for notes:

- Top:** A bottle of "Dr. Duarte's Chitosan PLUS" capsules.
- Top-Right:** A botanical illustration of a plant with yellow flowers and green leaves.
- Right:** A detailed illustration of a crayfish.
- Bottom-Right:** A chemical structure of a repeating unit of chitosan, showing two glucose rings linked by a beta-1,4-glycosidic bond, with an acetamido group (-NH-CO-CH<sub>3</sub>) on the second ring. The structure is enclosed in brackets with a subscript 'n'.
- Bottom:** A blue-tinted illustration of a shrimp, labeled "Artemia salina".

Discuss the following question.

What is the relationship between these pictures and industrial chemistry? Be ready to report to the class.

Useful expressions

I think that...

To me...

I believe that...

The connection is...

INSTRUCTIONS: Read the title of the article. Based on the previous information and the title of the article, **check all the statements you think the article deals with**. Be ready to justify your answer.

### **Development of a natural preservative system using the mixture of chitosan-*Inula helenium* L. extract**

- \_\_\_\_\_ This study developed a natural preservative system.
- \_\_\_\_\_ This natural preservative system includes chitosan.
- \_\_\_\_\_ Chitin is extracted from the rind of crabs and shrimps.
- \_\_\_\_\_ Materials for this study include water-soluble chitosan and *I. helenium* L. extract.
- \_\_\_\_\_ This system is applied to cosmetic formulae.

INSTRUCTIONS: Read the title of the article. Based on the previous information and the title of the article, **check all the statements you think the article deals with**. Be ready to justify your answer.

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- \_\_\_\_\_ This system is applied to cosmetic formulae.

INSTRUCTIONS: Carefully study and analyze the following words. Try to give your own definition for each one **or** write a sentence using that word. Consider the following example:

*Chitosan (definition): It is probably a modified carbohydrate polymer derived from the chitin component. We think it is related to crustaceans, such as crab and shrimp.*

*Chitosan (sentence): Chitosan is an important industrial component.*

Deacetylation

Antimicrobial

Antioxidative

Viscosity

Phospholipid layer

INSTRUCTIONS: Carefully study and analyze the following words. Try to give your own definition for each one **or** write a sentence using that word. Consider the following example:

*Chitosan (definition): It is probably a modified carbohydrate polymer derived from the chitin component. We think it is related to crustaceans, such as crab and shrimp.*

*Chitosan (sentence): Chitosan is an important industrial component.*

Deacetylation

Antimicrobial

Antioxidative

Viscosity

Phospholipid layer

INSTRUCTIONS: Read the article **quickly**. Check the statement that best expresses the **main idea** of the reading.

- \_\_\_\_\_ This study shows the development of a natural preservative system using the mixture of chitosan-*Inula helenium* L. extract (Introduction, materials and method).
- \_\_\_\_\_ This study explores the importance of the mixture of chitosan-*Inula helenium* L. extract in different types of cosmetic formulae (Introduction, method and results).
- \_\_\_\_\_ This study explains the negative effects of a preservative system using the mixture of chitin-*Inula helenium* L. extract (Introduction, materials and method).

INSTRUCTIONS: Read the article **quickly**. Check the statement that best expresses the **main idea** of the reading.

- \_\_\_\_\_ This study shows the development of a natural preservative system using the mixture of chitosan-*Inula helenium* L. extract (Introduction, materials and method).
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- \_\_\_\_\_ This study explains the negative effects of a preservative system using the mixture of chitin-*Inula helenium* L. extract (Introduction, materials and method).

INSTRUCTIONS: Read the article and decide if the following statements are true (T) or false (F).

\_\_\_\_\_ 1. Chitin was extracted from the bones of crabs and shrimps.

\_\_\_\_\_ 2. The use of chitin and chitosan has been limited due to their insolubility in water.

\_\_\_\_\_ 3. The cell of Gram-negative bacteria consists of thick peptidoglycan and phospholipid bilayer outside the cell membrane.

\_\_\_\_\_ 4. The water-soluble chitosan for this study was purchased from Jakwang Co. (Korea).

\_\_\_\_\_ 5. Chitosan powder and *I. helenium* L. extract were mixed in a 3:1 ratio.

\_\_\_\_\_ 6. For the bacterial growth and subculture, nutrient broth and nutrient agar were used.

\_\_\_\_\_ 7. The paper disks were dried for 4 hours in a dry oven.

\_\_\_\_\_ 8. Five strains were inoculated by streaking.

\_\_\_\_\_ 9. The preservative efficacy was evaluated in skin lotions and milk lotions.

**INSTRUCTIONS:** Carefully study and analyze the following questions. Answer and discuss them with your partners. Be ready to report to the class.

1. When was the last time you read a chemical article in English? What was it about?
2. When reading in English, do you read the article straight through from beginning to end? Or do you pause from time to time and go back to read things again? Explain.
3. What happens when you come to a word you do not know? Do you skip/ignore it? Do you use a dictionary? Do you try to figure out its meaning for yourself? Explain.
4. What strategies do you use when reading in English? Explain.
5. Do pictures/visuals/diagrams/tables help your understanding of the article? Explain.

### Useful expressions

I usually read...	The articles I read deal with...	It was about...
Yes, I read the entire...	Last week I read an article about...	No, I pause and...
I have noticed that...	I try to...	I re-read...

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Yes, I read the entire...	Last week I read an article about...	No, I pause and...
I have noticed that...	I try to...	I re-read...

INSTRUCTIONS: Read the following verbs in the past tense that you will find in the article ***"Development of a natural preservative system using the mixture of chitosan-Inula helenium L. extract."*** Pay attention to how the ending "-ed" is pronounced in each case.

___ <b><i>extracted</i></b>	___ <b><i>inoculated</i></b>	___ <b><i>linked</i></b>
___ <b><i>repeated</i></b>	___ <b><i>considered</i></b>	___ <b><i>formed</i></b>
___ <b><i>limited</i></b>	___ <b><i>composed</i></b>	___ <b><i>loaded</i></b>
___ <b><i>suggested</i></b>	___ <b><i>attached</i></b>	___ <b><i>showed</i></b>
___ <b><i>detailed</i></b>	___ <b><i>charged</i></b>	___ <b><i>addressed</i></b>
___ <b><i>mixed</i></b>	___ <b><i>observed</i></b>	___ <b><i>placed</i></b>

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<b>** Useful Ways to Express your Opinions **</b>	
- What do you think?	- I think that... / I believe that...
- Is that right?	- I am (not) sure about that.
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-	-



INSTRUCTIONS: Read the title of the article. Based on the previous information and the title of the article, **check all the statements you think the article deals with**. Be ready to justify your answer.

***"Development of a natural preservative system  
using the mixture of chitosan-Inula helenium L. extract"***

\_\_\_\_\_ This study developed an industrial preservative system.

\_\_\_\_\_ This preservative system includes chitosan.

\_\_\_\_\_ Chitin is extracted from the rind of crabs and shrimps.

\_\_\_\_\_ The *I. helenium* L. extract is water-soluble.

\_\_\_\_\_ This system is applied to cosmetic formulae.

INSTRUCTIONS: Read the title of the article. Based on the previous information and the title of the article, **check all the statements you think the article deals with**. Be ready to justify your answer.

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\_\_\_\_\_ The *I. helenium* L. extract is water-soluble.

\_\_\_\_\_ This system is applied to cosmetic formulae.

INSTRUCTIONS: Apply **skimming** to the article. Check the statement that best expresses the **main idea** of the reading.

- \_\_\_\_\_ This study explores the importance of the mixture of chitosan-*Inula helenium* L. extract in different types of cosmetic formulae
- \_\_\_\_\_ This study shows the development of a food preservative system using the mixture of chitosan-*Inula helenium* L. extract
- \_\_\_\_\_ This study explains the negative effects of a preservative system using the mixture of chitin-*Inula helenium* L. extract

INSTRUCTIONS: Apply **skimming** to the article. Check the statement that best expresses the **main idea** of the reading.

- \_\_\_\_\_ This study explores the importance of the mixture of chitosan-*Inula helenium* L. extract in different types of cosmetic formulae
- \_\_\_\_\_ This study shows the development of a food preservative system using the mixture of chitosan-*Inula helenium* L. extract
- \_\_\_\_\_ This study explains the negative effects of a preservative system using the mixture of chitin-*Inula helenium* L. extract

INSTRUCTIONS: Apply **skimming** to the article. Check the statement that best expresses the **main idea** of the reading.

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- \_\_\_\_\_ This study explains the negative effects of a preservative system using the mixture of chitin-*Inula helenium* L. extract

(correct answer: a)

INSTRUCTIONS: Read the article and decide if the following statements are true (T) or false (F).

- \_\_\_\_\_ 1. Chitin was extracted from the bones of crabs and shrimps.
- \_\_\_\_\_ 2. The use of chitin and chitosan has been limited due to their insolubility in water.
- \_\_\_\_\_ 3. The cell of Gram-negative bacteria consists of thick peptidoglycan and phospholipid bilayer outside the cell membrane.
- \_\_\_\_\_ 4. The water-soluble chitosan for this study was purchased from Jakwang Co. (Korea).
- \_\_\_\_\_ 5. Chitosan powder and *I. helenium* L. extract were mixed in a 2:1 ratio.
- \_\_\_\_\_ 6. For the bacterial growth and subculture, nutrient broth and nutrient agar were used.
- \_\_\_\_\_ 7. The paper disks were dried for 4 hours in a dry oven.
- \_\_\_\_\_ 8. Four strains were inoculated by streaking.
- \_\_\_\_\_ 9. The preservative efficacy was evaluated in skin lotions and milk lotions.

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- \_\_\_\_\_ 8. Four strains were inoculated by streaking.
- \_\_\_\_\_ 9. The preservative efficacy was evaluated in skin lotions and milk lotions.

(Answers: 1,F ; 2,T; 3,T ; 4,T; 5, F; 6,T; 7,F; 8, F; 9, T.)



List # 1

INSTRUCTIONS: Carefully study and analyze the following verbs. Classify them according to the three different *ed* endings. Use the rule previously studied.

-associated-identified-discovered-localized-dissected-accomplished-separated-required-

/id/

/d/

/t/



List # 2

INSTRUCTIONS: Carefully study and analyze the following verbs. Classify them according to the three different *ed* endings. Use the rule previously studied.

-accomplished-extracted-assayed-separated-subjected-proposed-discovered-associated-

/id/

/d/

/t/



List # 3

INSTRUCTIONS: Carefully study and analyze the following verbs. Classify them according to the three different *ed* endings. Use the rule previously studied.

-required-accomplished-compared-performed-opted-stored-subjected-extracted

/id/

/d/

/t/

INSTRUCTIONS: Read the title of the article and **predict its content** by providing your own ideas. Be ready to report to the class. Use the useful expressions chart.



## Identification of the Sex Pheromone of the German Cockroach, *Blattella germanica*

Useful expressions

For me...

To me...

I (think) believe that...

The article is about...

This reading deals with...

*Blattella germanica* is...

The pheromone suggests that... The main idea is...

Probably this article...

INSTRUCTIONS: Read the title of the article and **predict its content** by providing your own ideas. Be ready to report to the class. Use the useful expressions chart.



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## Activity four: Answer key

Past participle verb	Synonym
P1 associated	connected / related
P2 identified	recognized / named
P3 dissected	cut apart / dismembered
P3 assayed	tested / analyzed
P4 subjected	exposed / put through
P5 proposed	suggested / nominated
P6 compared	contrasted / paralleled
P7 performed	carried out / achieved
P8 stored	accumulated / kept

## Teacher's summary from a previous article studied in class

The antimicrobial activities of chitosan were assessed from the clear zone formation by paper disk method. The mixture of chitosan and *I. helenium* L. extract was tested using five different strains. Four kinds of formulae were used during the process: Milk lotion, skin lotion, cream and pack. Besides, human patch testing was performed to compare the preservative efficacy of the different strains. Results were analyzed through mean visual scores at 24, 48 and 72 hours. To evaluate the skin irritation potency, scores for the irritancy were divided into five groups. Finally, it is expected that the CI-mixture could be of help when developing milder cosmetics.

**INSTRUCTIONS: Prepare an oral summary (2 minutes max.)** of the article. Write your **ideas** in the space provided. Be ready to report to the class.


Keep the following in mind:

- |  |  |
|--|--|
| * Greet the audience.                    | * Include all important ideas.               |
| * Omit unnecessary words and phrases.    | * Do not read.                               |
| * Do not turn your back to the audience. | * Keep regular eye-contact.                  |
| * Watch you posture.                     | * Focus on pronunciation- <i>ed</i> endings. |

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### Vocabulary from Context

INSTRUCTIONS: Using your knowledge and information from the text, do the following exercise. Don't be afraid to guess.

\* coupled (p1)-“with” after “coupled” is an important preposition. This word implies connection.

Coupled means \_\_\_\_\_

\* assays (p2)-Notice the relationship with the word “electrophysiological”. This word is related to testing and analyzing.

Assays mean \_\_\_\_\_

\* pare down (p4)-Pay attention to the amount of formulas. This verb implies reducing and cutting.

Pare down means \_\_\_\_\_

\* shift (p5)-Study the connection of “chemical” and “shift”. Look at the contrast between these words and the previous paragraph.

Shift means \_\_\_\_\_

\* nestmate (p8)-Study the connection between “nest” and “mate”. This word is related to eggs in reptiles and insects.

Nestmate means \_\_\_\_\_

\* deterrents (p8)-Pay attention to the use of this compound. This word is associated to obstacles and impediment.

Deterrents means \_\_\_\_\_

\* search (p9)-Analyze the main purpose of the study. “Investigate” and “quest” are synonyms to this word.

Search means \_\_\_\_\_



INSTRUCTIONS: Carefully study and analyze the following sentences. What do they have in common? Do you recognize the structure in these sentences?

- \* Chitin **is extracted** from the rind of shrimps.
- \* The antimicrobial **was reported** by the International Journal of Science.
- \* The pheromone **was discovered** in 1993.
- \* The compound **was subjected** to different analysis.
- \* Field tests **were performed** in a pig farm.
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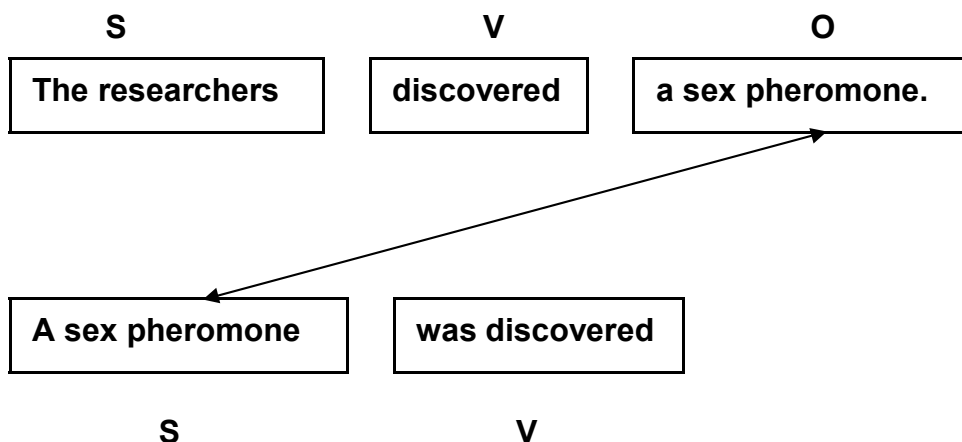
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### Passive Voice

**Active**                      The researchers discovered a sex pheromone.

**Passive**                     A sex pheromone was discovered.



1. The object of an active sentence becomes the subject of a passive sentence.
2. BE + Past Participle

### Usage of the Passive Voice in a Chemistry Context

1. To describe a scientific experiment or process.

- The sample was taken.
- The test tube was heated.
- The plants were labeled for further research.
- The patients were vaccinated.
- Chitin is extracted from the rind of shrimps.

INSTRUCTIONS: In pairs, read the following sentences and determine the function of the words written in **bold type**. You may also mark the following components: nouns, verbs, adjectives, adverbs, and articles.

1. *Magnetic charges **exert** attraction on metallic bodies.*
2. *The chemical reaction **suddenly** turned into a fire.*
3. *Some particles **detached** from the main body.*
4. *The results of the experiment were very **conspicuous**.*
5. ***Quicklime** is a very caustic substance.*
6. *The ferrous oxide dust was piled on a **stack**.*
7. ***Certainly**, security procedures are necessary to prevent accidents in the laboratory.*

INSTRUCTIONS: Divide the following words by indicating their components (roots and affixes.) Once you have finished, compare your ideas with a partner's.

*unpredictability*

*thermodynamic*

---

*antibiotic*

---

*interaction*

---

*uncharacterized*

---

*systemically*

---

**Morphological clues:** Analyzing a word's structure (that is, its morphology) can help you deduce its meaning (and function) faster. Words in many languages (including English and Spanish) are composed of roots and affixes:

**happi-NESS**

root – affix

**UN-necessari-LY**

affix-root-affix

**RE-act-ANT**

affix-root-affix

**BI-molecul-AR**

affix-root-affix

*Can you think of other examples used in Chemistry?*

**Compound words:** In English, words, particularly adjectives and nouns, are combined into compound structures in a variety of ways. There are three forms of compound words:

- the **closed form**, in which the words are melded together, such as ***toolbox, hardware, quicksilver, secondhand, keyboard, notebook;***
- the **hyphenated form**, such as ***over-the-counter, six-pack, mass-produced, amino-acid***
- the **open form**, such as ***post office, real estate, middle class, full moon, half sister, attorney general.***

Adapted from: <http://grammar.ccc.commnet.edu/GRAMMAR/compounds.htm>

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INSTRUCTIONS: Carefully study and analyze the following statements. Make an inference for each statement. Be ready to share your ideas.

1. Anibal got an excellent grade on the chemistry test.
2. Chemistry is the central science.
3. The school of chemistry is offering new courses in industrial chemistry to undergraduate students.
4. Synthetic chemicals can be found in many everyday products.
5. Some chemical compounds must be handled very carefully.
6. An important amount of analysis is required to produce a desired chemical reaction.



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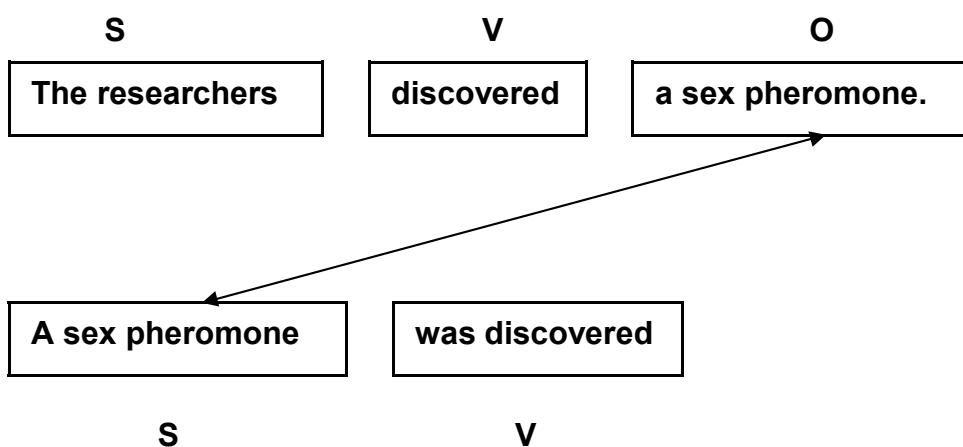
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## Visual Aid

### Passive Voice

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  - The sample was taken.
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  - The plants were labeled for further research.
  - Chitin is extracted from the rind of shrimps.



Ex. 1 / INSTRUCTIONS: Carefully study and listen to your teacher pronounce the following words. What do they have in common? Can you provide the pronunciation rule?

Group A: molecule carbon foothold natural system mixture

Group B: innumerable extracted bicarbonate preserve

Ex. 2 / INSTRUCTIONS: Carefully study the following rules.

Group A: Most common English words **without prefixes** get accented on the **first syllable**.

Group B: Most English words **with prefixes** are normally accented on the **first syllable of the base word**.

Now go back to your readings and add five examples to each group. Underline the accented syllable and pronounce them with your partner.



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**INSTRUCTIONS: Prepare an oral summary (2 minutes max.)** of the article. Write your **ideas** in the space provided. Be ready to report to the class.


Keep the following in mind:

- |  |                                |
|--|--------------------------------|
| * Greet the audience.                    | * Include all important ideas. |
| * Omit unnecessary words and phrases.    | * Do not read.                 |
| * Do not turn your back to the audience. | * Keep regular eye-contact.    |
| * Watch your posture.                    | * Include passive voice.       |
| * Stress words correctly                 | * Provide some inferences.     |

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INSTRUCTIONS: Carefully study the following rule.

*90% of compounds get stressed on the first word.*

Study the following visuals to make a compound word.

Go back to your readings and scan the text to find compounds. Construct a sentence for each one. Practice them orally with your partner. Be sure to stress the first word.

INSTRUCTIONS: In pairs, read the following extracts from a scientific article. Try to infer from the different clues what "**geosmin**" means. Be ready to justify your deductions!

1. "Everyone is familiar with the wonderful smell of warm earth, said David Cane, professor
2. of chemistry at Brown who oversaw the research...
3. "In soil, bacteria produce the chemical compound. In water,
4. blue-green algae make it. ...
5. "Until recently, scientists knew little about how **geosmin** is made. Then, a few years
6. ago, Cane found the gene responsible for **geosmin** formation in *Streptomyces coelicolor*,
7. a strain of plant-munching bacteria found in soil. Last year, the team discovered that a
8. single protein converts farnesyl diphosphate to **geosmin**.
9. "We found that **geosmin** is created by this bifunctional enzyme, Cane said. The two
10. steps of the process that forms **geosmin** are metabolically related. This finding was a
11. real surprise. This is the first bifunctional enzyme found for this type of terpene, the
12. class of chemicals **geosmin** belongs to.
13. "Jiaoyang Jiang, a Brown graduate student in the Department of Chemistry and lead
14. author of the journal article, said microbiologists working in water purification plants
15. will be most interested in knowing the origins of **geosmin**..."

Article consulted: <http://www.bio-medicine.org/biology-news-1/Good-earth-3A-Brown-chemists-show-origin-of-soil-scented-geosmin-411-2/>

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**INSTRUCTIONS: Prepare an oral summary (3 minutes max.)** of the article.  
Write your **ideas** in the space provided. Be ready to report to the class.


*When presenting, keep the following aspects in mind:*

- |  |                                |
|--|--------------------------------|
| * Greet the audience.                    | * Include all important ideas. |
| * Omit unnecessary words and phrases.    | * Do not read.                 |
| * Do not turn your back to the audience. | * Keep regular eye-contact.    |
| * Watch your posture.                    | * Include passive voice.       |
| * Pronounce words correctly              | * Provide some inferences.     |

**INSTRUCTIONS: Prepare an oral summary (3 minutes max.)** of the article.  
Write your **ideas** in the space provided. Be ready to report to the class.


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INSTRUCTIONS: For the *60-Second Science* podcast about nanotech paper, comment with your classmates and instructor the following questions. Try to use the phrases below to express your opinion. **Remember: Think fast, it's a Blitz Task!**

- What did you find the most interesting about the content?*
- How is the content relevant to your major/field?*
- Express your comments or professional opinion on the subject*
- Glossary:*

**oil spill – mesh – to debut – nanowires – cellulose - capillary – to sip into – to sop up**

<b>** Useful Ways to Express your Opinions **</b>	
- What do you think?	- I think that... / I believe that...
- Is that right?	- I am (not) sure about that.
- Do you agree with me?	- I agree. / I disagree (with you.)
- Excuse me, but...	- I don't think you're right.
- This is relevant / important because...	- They could have talked about...
- This (also) relates to...	- They could have (also) mentioned...
-	-

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-	-

## **\*\* Professor's Answer Key \*\***

### **Examples of vowel reduction for Activities 3 and 6:**

*From the Geosmin reading:*

*prOfessOr, bacteriA, sciEntist, discOvEr, chemIstry*

*From the other articles:*

*synthEsIs, develOpmEnt, resEArch, polYmEr, methOd, Unreactive,  
agEnt, solvEnt, sUrface, oxygEn, mAterial, pathOgEn*

---

### **Answer Key for "Geosmin" handout:**

#### **Clues from text (Activity 2):**

"smell of warm earth" (line 1)

"In soil, bacteria produce the chemical compound. In water,  
blue-green **algae** make it... (lines 3-4) \ 'al-jē\

"gene responsible for geosmin formation in *Streptomyces coelicolor*" (line 6)

"single protein converts farnesyl **diphosphate** to geosmin" (line 8) \dī-'fās-fāt\

"geosmin is created by this bifunctional **enzyme**" (line 9) \ 'en-zīm\

"**terpene**, the  
class of chemicals geosmin belongs to" (lines 11-12) \ 'tər-pēn\

"microbiologists working in water purification plants  
ill be most interested in knowing the origins of geosmin..." (lines 11-12)

**Geosmin:** ("earth smell") is the protein responsible for the odor of warm, moist soil.

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INSTRUCTIONS: Carefully study the following words. You will listen to these words in the video. Practice them with your partner. Be sure to reduce the vowels (schwa).

chem <u>i</u> cal <u>s</u>	nat <u>u</u> ral	hum <u>a</u> ns	synthet <u>i</u> c	essent <u>i</u> al
condit <u>i</u> on	comb <u>i</u> nation	subst <u>a</u> nces	environ <u>o</u> ment	chem <u>i</u> stry
en <u>e</u> rgy	devel <u>o</u> pment	prod <u>u</u> cts	fib <u>e</u> rs	cos <u>o</u> metics
electr <u>o</u> nic	comp <u>o</u> nents	chem <u>i</u> sts	empl <u>o</u> yment	relat <u>e</u> d
open <u>i</u> ng	ab <u>i</u> lity	man <u>u</u> fact <u>u</u> ring	serv <u>i</u> ce	pos <u>i</u> tion



INSTRUCTIONS: Carefully study the following words. You will listen to these words in the video. Practice them with your partner. Be sure to reduce the vowels (schwa).

chem <u>i</u> cal <u>s</u>	nat <u>u</u> ral	hum <u>a</u> ns	synthet <u>i</u> c	essent <u>i</u> al
condit <u>i</u> on	comb <u>i</u> nation	subst <u>a</u> nces	environ <u>o</u> ment	chem <u>i</u> stry
en <u>e</u> rgy	devel <u>o</u> pment	prod <u>u</u> cts	fib <u>e</u> rs	cos <u>o</u> metics
electr <u>o</u> nic	comp <u>o</u> nents	chem <u>i</u> sts	empl <u>o</u> yment	relat <u>e</u> d
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condit <u>i</u> on	comb <u>i</u> nation	subst <u>a</u> nces	environ <u>o</u> ment	chem <u>i</u> stry
en <u>e</u> rgy	devel <u>o</u> pment	prod <u>u</u> cts	fib <u>e</u> rs	cos <u>o</u> metics
electr <u>o</u> nic	comp <u>o</u> nents	chem <u>i</u> sts	empl <u>o</u> yment	relat <u>e</u> d
open <u>i</u> ng	ab <u>i</u> lity	man <u>u</u> fact <u>u</u> ring	serv <u>i</u> ce	pos <u>i</u> tion

**INSTRUCTIONS:** Carefully study and analyze the following example of paraphrasing. Next, read the paragraphs and provide some examples of paraphrasing.

**Text:** A chemical formula is an arrangement of symbols and numbers that describes a compound. The formula for a covalent compound also represents one molecule of the compound. H<sub>2</sub>O is the formula for one molecule of water.

**Paraphrasing:** Chemical formulas are symbols and numbers that represent a compound, for example H<sub>2</sub>O.

Each compound always contains the same elements. A compound is produced from its elements during a chemical change. In the process, chemical bonds form between atoms. Also, the atoms in each compound combine in a particular pattern.

A chemical reaction is the process that takes place when a substance changes into a new substance. Chemical changes occur during chemical reactions. A new substance resulting from a chemical reaction is known as a product.

All chemical changes involve energy changes. Energy must be taken in to break old chemical bonds. Also, energy is given off when new chemical bonds form.

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All chemical changes involve energy changes. Energy must be taken in to break old chemical bonds. Also, energy is given off when new chemical bonds form.



**INSTRUCTIONS: Prepare an oral presentation (3 minutes max.) Paraphrase** the most important ideas from the video. Write your **ideas** in the space provided. Be ready to report to the class.


Keep the following in mind:

- |  |   |
|--|---|
| * Greet the audience.                    | * Include all important ideas.                  |
| * Omit unnecessary words and phrases.    | * Do not read.                                  |
| * Do not turn your back to the audience. | * Keep regular eye-contact.                     |
| * Watch your posture.                    | * <b>Reduce vowels (schwa / choose 5 words)</b> |

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## Examples of vowel reduction (schwa) / Activity 4

P1	quarter, natural, products, collections, problematic
P2	component, compound, given, cultures
P3	molecular, carbons, number, additional
P4	complexity, structure, determination, rectangular
P5	clustered, anomalies, central
P6	skeleton, number, isolated
P7	bacterial, activity, inhibition, action
P8	biologically, products, chemical, vascular, opportunity

## Glossary

- P1 diterpene: [ORG CHEM] a group of terpenes that have twice as many atoms in the molecule as monoterpenes. Any derivative of diterpene. **terpene** [ORG CHEM] **1.** a moderately toxic, flammable, unsaturated hydrocarbon liquid found in essential oils and plant oleoresins; used as an intermediate for camphor, menthol, and terpineol. **2.** A class of naturally occurring compounds whose carbon skeletons are composed exclusively of isopentyl (isoprene) C5 units. Also known as isoprenoid.
- P1 strains: a: inherited or inherent character, quality, or disposition <a *strain* of madness in the family> b: TRACE , STREAK <a *strain* of fanaticism>.
- P2 broth: liquid in which meat, fish, cereal grains, or vegetables have been cooked : stock <chicken *broth*>.
- P2 partitioned: to separate or divide by a partition (as a wall) —often used with *off*.
- P4 roughly: without completeness or exactness : APPROXIMATELY <*roughly* 20 percent>.
- P4 planar: relating to, or lying in a plane.
- P4 protrudes out: to cause to project *intransitive verb*: to jut out from the surrounding surface or context <a handkerchief *protruding* from his breast pocket>.
- P5 gauche: not planar <*gauche* conformation of molecules>.
- P5 bond: (n) enlace.
- P7 agar: a gelatinous colloidal extractive of a red alga (as of the genera *Gelidium*, *Gracilaria*, and *Eucheuma*) used especially in culture media or as a gelling and stabilizing agent in foods
- P7 lawns: a relatively even layer of bacteria covering the surface of a culture medium

### Main ideas vs. Supporting ideas:

As you can see, the supporting ideas (in normal type) provide examples or reasons (or data) to support and reinforce the main argument (*in italics*):

*"Implants coated with antibacterial polymers can resist biofilm formation, enabling them to better integrate with the patient's tissue.* The polymer coatings are loaded with antimicrobial drugs. In some cases the drugs are slowly released from the polymer matrix; in others, biodegradable polymers gradually break down and free the drugs. These approaches mean that high local concentrations of the drugs can be used without exceeding the overall toxicity level in the rest of the body...

**\*\*\*INSTRUCTIONS:** In pairs, read the following extracts from an article and circle the main idea. You can underline the supporting ideas, too. Be ready to justify your reasons!\*\*\*

1. *"Also in the early 1990s, new types of structures started to be made that consist of carbon spheres of increasing diameters layered on top of each other, akin to the wooden Russian dolls. Due to their layered design these were coined nano-onions. The nano-onions were only the tip of the iceberg, with a wide variety of new carbon nanostructures such as endohedral fullerenes, cup-stacked nanotubes, nanohorns, nanotori, nanobuds and graphenes now emerging as new and fascinating forms of carbon whose chemical and physical properties are currently being unravelled.*

2. *"NASA researchers have resparked interest in the original carbon nano-onions, considering them as potential additives for aerospace applications. The nano-onions have demonstrated superior lubrication properties to other conventional lubricants, and we foresee a very promising future for these and other new and still unexplored forms of carbon..."*

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## Paraphrasing:

*Paraphrasing* can be defined as restating *in your own words* what a writer (or speaker) has presented already. The ideas are the same but the form in which they are expressed changes;

**Original:** "NASA researchers have resparked interest in the original carbon nano-onions, considering them as potential additives for aerospace applications..."

**Paraphrase:** "Scientists from NASA have renewed their interest in the original carbon nano-onions, due to the fact that they could be used as components in the aerospace industry..."

**\*\*\*INSTRUCTIONS:** In pairs, read the following extracts from an article and paraphrase them. Be ready to justify your reasons!\*\*

1. "Carbon is a singular chemical element with a unique ability to join together forming a wide variety of fascinating molecules, ranging from a few carbon atoms to long complex chains."

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2. "This ability has allowed the creation of numerous new materials and molecules of interest for a very diverse range of applications..."

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**INSTRUCTIONS:** For the *60-Second Science* podcast about nanotech paper, comment with your classmates and instructor the following questions. Try to use the phrases below to express your opinion. **Remember: Think fast, it's a Blitz Task!**

- a. What did you find the most interesting about the content?
- b. How is the content relevant to your major/field?
- c. Express your comments or professional opinion on the subject
- d. Glossary:

**photosynthesis – electrolysis – alkaline – heat – fuel cell – harsh – catalyst – phosphate – cobalt - electrode - electrolyzers**

<b>** Useful Ways to Express your Opinions **</b>	
- What do you think?	- I think that... / I believe that...
- Is that right?	- I am (not) sure about that.
- Do you agree with me?	- I agree. / I disagree (with you.)
- Excuse me, but...	- I don't think you're right.
- This is relevant / important because...	- They could have talked about...
- This (also) relates to...	- They could have (also) mentioned...

## What is an abstract? (Originally by John December and Susan Katz)

An abstract is a stand-alone statement that briefly conveys the essential information of a paper, article, document or book; **presents the objective, methods, results, and conclusions of a research** project; has a brief, non-repetitive style.

It might serve as the only means by which a researcher determines what information a paper contains. Moreover, a researcher might make a decision whether to read the paper or not based on the abstract alone. Because of this need for self-contained compactness, **an abstract must convey the essential results of a paper.**

### What goes in an abstract?

- describe the objective, methods, results, and conclusions;
- omit background information, a literature review, and detailed description of methods;
- avoid reference to other literatures.

### What is the style of an abstract?

The style of an abstract should be concise and clear. The abstract's wording should be very direct.

#### **\*\*Article:\*\***

**A fullerene–single wall carbon nanotube complex for polymer bulk heterojunction photovoltaic cells**, by Cheng Li, Yuhong Chen, Yubing Wang, Zafar Iqbal, Manish Chhowalla and Somenath Mitra – Consulted from: <http://www.rsc.org/publishing/journals/JM/article.asp?doi=b618518e>

#### **\*\*\*Abstract:\*\***

"A novel immobilized fullerene–single wall carbon nanotube (C<sub>60</sub>–SWCNT) complex was synthesized via a microwave induced functionalization approach. It has been used as a component of the photoactive layer in a bulk heterojunction photovoltaic cell. As compared to a control device with only C<sub>60</sub>, the addition of SWCNTs resulted in an improvement of both the short circuit current density JSC and the fill factor (FF). This device takes advantage of the electron accepting feature of C<sub>60</sub> and the high electron transport capability of SWCNTs. The results indicate that C<sub>60</sub> decorated SWCNTs are promising additives for performance enhancement of polymer photovoltaic cells."

### How do you write an abstract?

*Writing an abstract involves boiling down the essence of a whole paper into a single paragraph that conveys as much new information as possible.* One way of writing an effective abstract is to start with a draft of the complete paper and do the following:

- Highlight the objective and the conclusions that are in the paper's introduction and the discussion.
- Bracket information in the methods section of the paper that contains keyword information.
- Highlight the results from the discussion or results section of the paper.
- Compile the above highlighted and bracketed information into a single paragraph.
- Condense the bracketed information into the key words and phrases that identify but do not explain the methods used.
- Delete extra words and phrases.
- Delete any background information.
- Rephrase the first sentence so that it starts off with the new information contained in the paper, rather than with the general topic. One way of doing this is to begin the first sentence with the phrase "this paper" or "this study."
- Revise the paragraph so that the abstract conveys the essential information.

For further information: Wilkinson, Antoinette Miele. *The Scientist's Handbook for Writing Papers and Dissertations*. 1991. Ideas adapted from: <http://www.rpi.edu/web/writingcenter/abstracts.html>

**INSTRUCTIONS:** Carefully study and analyze the following **parts of an abstract**.

The aim of this study was to develop a new natural preservative system making up for the weak points of chitosan as a preservative. Anti-microbial activities of the materials were determined by clear zone on the plate using the paper disk method. We were able to develop a new preservative system containing both chitosan and *I. helenium* L. extract named CI-mixture. When 100% of the mixture was applied to cosmetic formulae such as skin lotion, milk lotion and cream it revealed appropriate preservative efficacy. The result of patch test also showed that the preservative system reduced skin irritation. Therefore, the good natural preservative system including chitosan and *I. helenium* L. extract could be incorporated in cosmetic formulations.

Objective: The aim of...	This paper...	This study...	The main...
Method: An innovative method...	...was used to...	The method followed in the...	
Results: It revealed...	The results show...	We found...	It was discovered...
Conclusion: Therefore...	We concluded...	This will...	As a conclusion...

INSTRUCTIONS: Study and analyze the following statements. What is the difference between the sentences in column A and column B?

Column A

Column B

Chemical formulas are symbols and numbers that represent a compound, for example H<sub>2</sub>O (Castillo 2008).

When there is a chemical reaction, the resulting substance is called a product (Martinez 2006).

The process that takes place when a substance changes into a new and different substance is known as a chemical reaction (Solis 2007).

Castillo (2008) suggested, “A chemical formula is an arrangement of symbols and numbers that describes a compound. H<sub>2</sub>O is the formula for one molecule of water” (p 146).

Martinez (2006) points out, “A new substance resulting from a chemical reaction is known as a product” (p 721).

A “chemical reaction is the process that takes place when a substance changes into a new substance” (Solis 2007, p 89).

INSTRUCTIONS: Carefully study and analyze the following statements. What is the difference between the sentences in column A and column B?

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### Exercise 1

**INSTRUCTIONS:** Study and analyze the following definition of **plagiarism**.

Plagiarism means to make use of someone else's work as though it is your own. If you copy the words or the ideas of someone else without saying they are copied you have committed plagiarism. Be absolutely clear about the following:

1. Plagiarism applies to copying word for word but also to re-writing in your own words (because you are copying the ideas).
2. Plagiarism applies to facts as well as opinions if they are directly copied from someone's work (because you copy the way they are presented).
3. Plagiarism applies to books, magazines, newspapers, lecturer's notes, TV shows, web sites and any other source including other students' work.

### Exercise 2

**INSTRUCTIONS:** In pairs decide whether the following students have plagiarized and why.

Source: Botts A. 1985. The Magic of the Universe. Lingelport: Macademia University Press.

Neponia is a small planet in a distant galaxy visible only through high powered radio telescopes positioned on satellites orbiting the Earth. This planet is, of all known planets, the most likely to have an atmosphere similar to that of the Earth. If it also possesses water then it has the potential to support life as we know it.

**Student-01:**

As we all know, Neponia is a small planet in a distant galaxy visible only through high powered radio telescopes.

**Student-02:**

The planet Neponia is in a far away part of the universe and can be seen by astronomy equipment located in space.

**Student-03:**

Neponia is a small planet in a distant galaxy visible only through high powered radio telescopes positioned on satellites orbiting the Earth. This planet is, of all known planets, the most likely to have an atmosphere similar to that of the Earth. If it also possesses water then it has the potential to support life as we know it.

**Student-04:**

Neponia is a small planet in a distant galaxy visible only through high powered radio telescopes positioned on satellites orbiting the Earth. This planet is, of all known planets, the most likely to have an atmosphere similar to that of the Earth. If it also possesses water then it has the potential to support life as we know it.

(Botts A. 1985. The Magic of the Universe.)



INSTRUCTIONS: Study the following sentences. We can find the *ed* ending in the following:

Reg. past verbs	The researchers conducted <b>ed</b> an experiment in the lab.
Reg. past participle verbs	The modification is achieved <b>ed</b> with DNA sequencing.
Adjectives with <i>ed</i>	It is known as genetically modified <b>ed</b> food.

Do you remember the *ed* ending pronunciation rule? Write it down.

/ld/

/d/

/t/



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Do you remember the *ed* ending pronunciation rule? Write it down.

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### Vocabulary Key to "Effect Of Strong Acids And Alkalis"

<b>standing cylinder:</b> \ˈsl-lən-dər\	<b>caustic soda:</b> \ˈk ɔs-tlk ˈsow-də \
<b>pig's trotters:</b> \ˈtra-tərz\	<b>disintegrate:</b> \dls-ˈln-tə-greyt \
<b>wristwatch:</b> \ˈrlst-watʃ \	<b>dissolve:</b> \dl-ˈzalv \
<b>Sodium Hydroxide:</b> \ˈsow-diy-əm hay-ˈdrak-sayd\	<b>protein:</b> \ˈprow-tiyn \
<b>Concentrated Hydrochloric acid:</b>	<b>flesh:</b> \ˈflɛʃ \
\ˈkan(t)-sən-treytld hay-drə-ˈkl ɔr-ik ˈæ-səd\	<b>fat:</b> \ˈfæt \
<b>alkali:</b> \ˈæl-kə-lay\	

**Sources:** <http://www.science-tube.com/index.php?c=chemie&section=091>

<http://www.merriam-webster.com>

#### \*\* Useful Ways to Express your Opinions \*\*

- <i>What do you think?</i>	- <i>I think that... / I believe that...</i>
- <i>Is that right?</i>	- <i>I am (not) sure about that.</i>
- <i>Do you agree with me?</i>	- <i>I agree. / I disagree (with you.)</i>
- <i>Excuse me, but...</i>	- <i>I don't think you're right.</i>
- <i>This is relevant / important because...</i>	- <i>They could have talked about...</i>
- <i>This (also) relates to...</i>	- <i>They could have (also) mentioned...</i>

### Scientist's notes on *Effect of strong Acids and Alkalis*

**Results:** The solution in the small cylinder takes on a blue/green colour and bubbles rise to the surface. At the end of the experiment, the watch has completely disintegrated and the remaining metal pieces are thin and brittle. The caustic soda corrodes the pig's trotter slightly, the solution becomes cloudy. The trotter in the Hydrochloric acid dissolves completely, leaving behind a dark solution and a shapeless, pale mass.

Acids react with metal, such as the iron contained in the stainless steel watch, forming metal salts and Hydrogen.

The watch contains metals other than iron, and it is these that are responsible for colouring the solution.

The reactions of the acid and alkalis with the pig's trotters are manifold. A few of the possible reactions are listed here:

The cells of living bodies such as ours mainly consist of proteins, which are degenerated by the acid, meaning that their angular structure changed irrevocably. The bigger protein constructs in the cells are destroyed in this process. Enzyme activity is now taking place in an uncoordinated and chaotic way, so that the body's own enzymes speed up the process of degeneration. The high concentration of the acid also breaks up the peptide bonds between the amino acids making up the proteins, thus destroying the proteins further. Bones consist of carbonates and proteins. Proteins are destroyed as shown above, and carbonates in the presence of strong acids change into Carbon Dioxide and water. At the end of the process, only the fat is left, which will be found floating on the solution.

The alkali has a much less spectacular reaction with the pig's trotter, but a degree of destruction is visible. The strong caustic soda first neutralises the natural, acidic protective layer and then forms a soapy coating with the fat – this may be what protects the trotter from further destruction. A few proteins are also hydrolyzed (disintegrated) by the alkali.

<http://www.science-tube.com/index.php?c=chemie&section=091>

## ***Skeleton Outline for Note Taking in Real Time***

**Topic / Title:** \_\_\_\_\_ **Date:** \_\_\_\_\_

I. Main idea #1 \_\_\_\_\_

A. Supporting idea #1: \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

D. \_\_\_\_\_

II. Main idea #2: \_\_\_\_\_

A. Supporting idea #1: \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

D. \_\_\_\_\_

III. Main idea #3: \_\_\_\_\_

A. Supporting idea #1: \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

D. \_\_\_\_\_

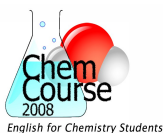
III. Main idea #4: \_\_\_\_\_

A. Supporting idea #1: \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

D. \_\_\_\_\_



**\*\*\*\*\*General Advice for Taking Notes in Real Time\*\*\*\*\***

**I. There are many reasons for taking lecture notes.**

- A. Making yourself take notes forces you to listen carefully and test your understanding of the material.
- B. When you are reviewing, notes provide a gauge to what is important in the text.
- C. Personal notes are usually easier to remember than the text.
- D. The writing down of important points helps you to remember them even before you have studied the material formally.

**II. Instructors usually give clues to what is important to take down.** Some of the more common clues are:

- A. Material written on the blackboard.
- B. Repetition
- C. Emphasis
  - 1. Emphasis can be judged by tone of voice and gesture.
  - 2. Emphasis can be judged by the amount of time the instructor spends on points and the number of examples he or she uses.
- D. Word signals (e.g. "There are **two points of view** on..." "The **third** reason is..." "In **conclusion**...")
- E. Summaries given at the end of class.
- F. Reviews given at the beginning of class.

**III. Each student should develop his or her own method of taking notes**, but most students find the following suggestions helpful:

- A. Make your notes brief.
  - 1. **Never use a sentence where you can use a phrase. Never use a phrase where you can use a word.**
  - 2. Use abbreviations and symbols, but be consistent.
- B. Put most notes in your own words. However, the following should be noted exactly:
  - 1. Formulas
  - 2. Definitions
  - 3. Specific facts
- C. Use outline form and/or a numbering system. Indentation helps you distinguish major from minor points.
- D. If you miss a statement, write key words, skip a few spaces, and get the information later.
- E. Don't try to use every space on the page. Leave room for coordinating your notes with the text after the lecture. (You may want to list key terms in the margin or make a summary of the contents of the page.)
- F. Date your notes. Perhaps number the pages.

**\*\*\*\*\*Hints on Note Making\*\*\*\*\***

- 1. Don't write down everything that you read or hear. Be alert and attentive to the main points. Concentrate on the "meat" of the subject and forget the trimmings.
- 2. Notes should consist of key words or very short sentences. If a speaker gets sidetracked it is often possible to go back and add further information.
- 3. Take accurate notes. You should usually use your own words, but try not to change the meaning. If you quote **directly** from an author, quote **correctly**.
- 4. Think a minute about your material before you start making notes. Don't take notes just to be taking notes! Take notes that will be of real value to you when you look over them at a later date.
- 5. Have a uniform system of punctuation and abbreviation that will make sense to you. Use a skeleton outline and show importance by indenting. Leave lots of white space for later additions.
- 6. Omit descriptions and full explanations. Keep your notes short and to the point. Condense your material so you can grasp it rapidly.
- 7. Don't worry about missing a point.
- 8. Don't keep notes on oddly shaped pieces of paper. Keep notes in order and in one place.
- 9. Shortly after making your notes, go back and rework (not redo) your notes by adding extra points and spelling out unclear items. Remember, we forget rapidly. Budget time for this vital step just as you do for the class itself.
- 10. Review your notes regularly. This is the only way to achieve lasting memory.

### Pronunciation Key to "AP Chemistry Podcast 1.3 Nuclear Chemistry Part 1"

<b>nucleus:</b> \ 'nuw-kliy-əs \	<b>decay:</b> \ dl-'key \	<b>atom:</b> \ 'æ-təm \
<b>nuclei:</b> \ 'nuw-kliy-ay \	<b>(un)stable:</b> \ ən,-'stey-bəl \	<b>alpha:</b> \ 'æl-fə \
<b>particle:</b> \ 'par-tl-kəl \	<b>stability:</b> \ stə-'bl-lə-tiy \	<b>beta:</b> \ 'bey-tə \
<b>neutron:</b> \ 'nuw-tran \	<b>Lead (Pb):</b> \ 'lɛd \	<b>gamma:</b> \ 'gæ-mə \
<b>proton:</b> \ 'prow-tan \	<b>Uranium (U):</b> \ jü- 'rey-niy-əm \	<b>back and forth:</b> \ 'fɔrθ \
<b>electron:</b> \ l-'lɛk-tran \	<b>isotope:</b> \ 'ay-sə-towp \	"Between two places or persons."
<b>nuclear:</b> \ 'nuw-kliy-ər \	<b>ratio:</b> \ 'rey-ʃiy-ow \	<b>capture:</b> \ 'kæp-tʃər \
<b>reaction:</b> \ riy-'æk-ʃən \	<b>ratio:</b> "The indicated quotient of two mathematical expressions."	<b>"E equals mc square":</b>
<b>radioactivity:</b>		\ 'iy-kwəl-z \ 'skwɛr \
\ 'rey-diy-ow - æk-'tl-və-tiy \	<b>Nuclide:</b> \ 'nuw-klayd \	<b>equation:</b> \ l-'kwey-ʃən \

**Sources:** [http://www.teachertube.com/view\\_video.php?viewkey=0df05938cc531126614c](http://www.teachertube.com/view_video.php?viewkey=0df05938cc531126614c)

<http://www.merriam-webster.com>

### Pronunciation Key to "AP Chemistry Podcast 1.3 Nuclear Chemistry Part 1"

<b>nucleus:</b> \ 'nuw-kliy-əs \	<b>decay:</b> \ dl-'key \	<b>atom:</b> \ 'æ-təm \
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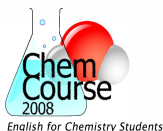
<http://www.merriam-webster.com>



<http://www.chemcourseucr.com> - October 13<sup>th</sup>., 2008 - **Handout #0301f**

Unit # 3 "At the Conference" - Olmedo Bula - Jenaro A. Díaz -Ducca

**Homework/ II Quiz:** As a take-home Quiz for Unit 2, select a short article (2-3 pages long) and write an abstract for it along with a short professional opinion individually. Post your abstract and comments on the ChemCourse's Blog <http://www.chemcourseucr.blogspot.com> by next Monday October 20<sup>th</sup>., and include the link where the actual article can be found. The article you choose must not have an abstract already.



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INSTRUCTIONS: Study the following questions. Discuss your ideas with your classmates.

1. How do you usually take notes?
2. What other strategies do you use when you attend a lecture?
3. What happens when you come to a word you do not know? Do you ignore it? Do you try to figure out its meaning for yourself?
4. Do pictures/visuals/diagrams/tables help your understanding of the lecture?
5. What do you do when do not understand information from the lecture?
6. What helps you understand the speaker's attitude in a lecture?
7. What are some difficulties you face when attending a lecture in English?

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INSTRUCTIONS: Study the following phrases. What do they have in common? Discuss your ideas with your classmates.

1. The aim of this presentation is to introduce nuclear chemistry.
2. It revealed relevant and positive results.
3. Therefore, the preservative system could be incorporated in several formulations.
4. Another example of this is nuclear fission.
5. First, it is important to establish the context.
6. Next, it is relevant to mention that nuclear reactions might be dangerous
7. I want to remind you that we will be talking about nuclear chemistry.

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### Pronunciation Key to “AP Chemistry Podcast 1.3 Nuclear Chemistry Part 2”

<p><b>nucleus:</b> \ˈnuw-kliy-əs\</p> <p><b>neutron:</b> \ˈnuw-tran \</p> <p><b>electron:</b> \ ɪ-ˈlɛk-tran \</p> <p><b>nuclear:</b> \ˈnuw-kliy-ər \</p> <p><b>reaction:</b> \riy-ˈæk -ʒən \</p> <p><b>fission:</b> \ˈfɪ-shən, -zhən\</p> <p><b>fusion:</b> \ˈfyü-zhən\</p> <p><b>reach:</b> \ˈrēch\</p> <p><b>split:</b> \ˈsplit\</p> <p>to tear or rend apart : <b>BURST</b> to subject (an atom or atomic nucleus) to artificial disintegration by fission</p> <p><b>wind up:</b> \ˈwīnd-,əp\</p> <p><b>pipe:</b> \ˈpīp\</p> <p>a long tube or hollow body for conducting a liquid, gas, or finely divided solid or for structural purposes</p>	<p><b>decay:</b> \ dl-ˈkey \</p> <p><b>isotope:</b> \ˈay-sə-towp \</p> <p><b>turbine:</b> \ˈtər-bən, -ˌbīn\</p> <p><b>melt down:</b> \ˈmelt-,daʊn\</p> <p>the accidental melting of the core of a nuclear reactor</p> <p><b>release:</b> \ri-ˈlēz\</p> <p><b>former:</b> \ˈfɔr-mər\</p> <p><b>absorb:</b> \əb-ˈsɔrb, -ˈzɔrb\</p> <p><b>sustainable:</b> \sə-ˈstā-nə-bəl\</p> <p><b>tremendous:</b> \tri-ˈmen-dəs\</p>	<p><b>atom:</b> \ˈæ-təm \</p> <p><b>bombard:</b> \ˈbäm-,bärd\</p> <p><b>foreign:</b> \ˈfɔr-ən, ˈfär-\</p> <p><b>funky:</b> \ˈfəŋ-kē\</p> <p><b>cascade:</b> \kas-ˈkād\</p> <p><b>steam:</b> \ˈstēm\</p> <p><b>identical:</b> \ɪ-ˈden-ti-kəl\</p> <p><b>calculations:</b> \,kal-kyə-ˈlā-shən\</p> <p><b>half:</b> \ˈhaf, ˈhāf\</p>
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**Sources:** [www.teachertube.com/view\\_video.php?viewkey=0531126614cb](http://www.teachertube.com/view_video.php?viewkey=0531126614cb) [www.merriam-webster.com](http://www.merriam-webster.com)

## ***Skeleton Outline for Note Taking in Real Time***

**Topic / Title:** \_\_\_\_\_ **Date:** \_\_\_\_\_

I. Main idea #1 \_\_\_\_\_

A. Supporting idea #1: \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

Organizational markers: \_\_\_\_\_

II. Main idea #2: \_\_\_\_\_

A. Supporting idea #1: \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

Organizational markers: \_\_\_\_\_

III. Main idea #3: \_\_\_\_\_

A. Supporting idea #1: \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

Organizational markers: \_\_\_\_\_

III. Main idea #4: \_\_\_\_\_

A. Supporting idea #1: \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

Organizational markers: \_\_\_\_\_

INSTRUCTIONS: Carefully study and analyze the following phrases.

Expressing opinion	Asking for clarification
It is relevant to mention that...	What exactly do you mean by...?
One can say that...	I'm sorry but I don't quite understand what you mean by this / are getting at?
We need to remember that...	I'm afraid I'm not clear about...
Please notice that...	I'm not quite sure I follow you.
As far as I'm concerned...	Could you explain what you mean by this, please?
It is usually the case that...	Could you explain why...?
The results suggest it is likely that...	I'd like to know if...

**Controlled Practice:** Consider the following ideas from the lecture.

SA: Read the statement.      SB: Express an opinion or ask for clarification.

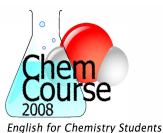
1. (Ask for clarification) Half life is the time required for half of any given quantity of a substance to decay.
2. (Ask for clarification) An isotope of cesium has a half life of 30 years.
3. (Express an opinion) Each split is accompanied by a large quantity of energy.
4. (Express an opinion) Collision of a neutron with a U-235 nucleus can cause the nucleus to split, creating two smaller nuclides and three free neutrons.
5. (Ask for clarification) The three neutrons may travel outward from the fission, colliding with nearby U-235 nuclei, causing them to split as well.
6. (Ask for clarification) If too much energy is produced, the core of the nuclear reactor can be melted down.
7. (Express an opinion) Carbons can absorb extra neutrons in a nuclear reactor.

INSTRUCTIONS: Listen to a short section from the lecture. Fill in the blanks with the appropriate word.

- \*3.48            ... and then \_\_\_\_\_ solve these...
- \*3.56            ...I wanna remind you that \_\_\_\_\_ for most...
- \*4.08            ...winds up occurring \_\_\_\_\_ as the substance...
- \*4.46            ...our stable \_\_\_\_\_ atomic structure...
- \*4.57            ...in the United States \_\_\_\_\_ because we are...
- \*5.09            ...so fission is \_\_\_\_\_ the type of nuclear...
- \*8.28            ...a generator which \_\_\_\_\_ produces electricity...
- \*9.43            ...this nuclei together \_\_\_\_\_ the nuclei...
- \*9.52            ... is helium \_\_\_\_\_ and we...
- \*10.07           ... could have \_\_\_\_\_ a relatively cheap...
- \*10.09           ... and easy \_\_\_\_\_ form of energy...
- \*10.12           ...form of energy \_\_\_\_\_ to suit our needs...

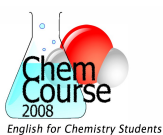
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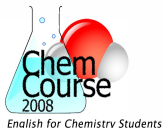
<http://www.chemcourseucr.com> - October 20<sup>th</sup>., 2008 - **Handout #0303a**  
Unit # 3 "At the Conference" - Olmedo Bula - Jenaro A. Díaz-Ducca

INSTRUCTIONS: *Predict what the conference **"Biomass-derived fuels, polymers and chemicals. The case of Costa Rica"** will discuss. Write down your ideas for contents and vocabulary here:*



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**Vocabulary Key to "Biomass-derived fuels, polymers and chemicals. The case of Costa Rica."**

**Biofuels – polymers – chemicals - energy – demand – hydroelectric – geothermal – eolic - fossil fuel –**

**biomass – urban – industry – population – growth – environmental – neutral – government – ethanol –**

**petrol - raw - material – policy – source – production – alternative**

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**\*\*\*\*\*Some Hints on Note Making\*\*\*\*\***

1. Concentrate on the "meat" of the subject and forget the trimmings.
2. Notes should consist of key words or very short sentences. Never use a sentence where you can use a phrase. Never use a phrase where you can use a word.
3. Instructors usually give clues to what is important to take down by using **repetition, emphasis, or word signals**.
4. Don't worry about missing a point. If you miss a statement, write key words, skip a few spaces, and get the information later.
5. Have a uniform system of punctuation and abbreviation that will make sense to you. Use a skeleton outline and show importance by indenting. Leave lots of white space for later additions.
6. Omit descriptions and full explanations. Keep your notes short and to the point.
7. Shortly after making your notes, go back and rework (not redo) your notes by adding extra points and spelling out unclear items.
8. Review your notes regularly. This is the only way to achieve lasting memory.
9. Date your notes. Perhaps number the pages.



Ideas freely adapted from: <http://www.dartmouth.edu/~acskills/success/notes.html>

**\*\*\*\*\*Some Examples of Signal Words (discourse markers)\*\*\*\*\***

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• "There are three reasons why...."</li> <li>• "First...Second... Third...."</li> <li>• "And most important ..."</li> <li>• "A major development...."</li> <li>• "On the other hand...."</li> <li>• "On the contrary...."</li> <li>• "For example...."</li> <li>• "Similarly...."</li> <li>• "In contrast...."</li> <li>• "Also...."</li> <li>• "Furthermore...."</li> </ul> | <ul style="list-style-type: none"> <li>• "As an example...."</li> <li>• "For instance...."</li> <li>• "Therefore...."</li> <li>• "In conclusion...."</li> <li>• "As a result...."</li> <li>• "Finally...."</li> <li>• "In summary...."</li> <li>• "From this we see...."</li> <li>• "Remember that...."</li> <li>• "The important idea is that...."</li> <li>• "The basic concept here is...."</li> </ul> |
|---|---|

Ideas freely adapted from: <http://www.fotosearch.com/video-footage/note-taking.html>



## ***Skeleton Outline for Note Taking***

**Lecture:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**I. Main idea #1** \_\_\_\_\_

Supporting ideas and notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Discourse markers: \_\_\_\_\_

**II. Main idea #2:** \_\_\_\_\_

Supporting ideas and notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Discourse markers: \_\_\_\_\_

**III. Main idea #3:** \_\_\_\_\_

Supporting ideas and notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Discourse markers: \_\_\_\_\_

**III. Main idea #4:** \_\_\_\_\_

Supporting ideas and notes: \_\_\_\_\_

\_\_\_\_\_

Discourse markers: \_\_\_\_\_

**IV. Questions I would like to ask: 1.** \_\_\_\_\_

**2.** \_\_\_\_\_



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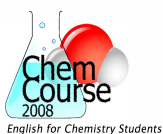
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**INSTRUCTIONS:** Predict what the conference "**Biomass-derived fuels, polymers and chemicals. The case of Costa Rica**" will discuss. Write down your ideas for contents and vocabulary here:

1. What's the current importance of biofuels in Costa Rica?
2. What other examples of biofuels are being currently developed in Costa Rica?
3. Is it realistic to produce them in Costa Rica? Why?
4. What are the implications of biofuel development for you as a chemist?
5. What did you find the most interesting about the lecture?
6. Do you agree or disagree with the lecturer's ideas?

**\*\* Useful Ways to Express your Opinions \*\***

- What do you think?	- I think that... / I believe that...
- Is that right?	- I am (not) sure about that.
- Do you agree with me?	- I agree. / I disagree (with you.)
- Excuse me, but...	- I don't think you're right.
- This is relevant / important because...	- They could have talked about...
- This (also) relates to...	- They could have (also) mentioned...
-	-



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- What do you think?	- I think that... / I believe that...
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-	-

INSTRUCTIONS: Answer the following question by making a list. Be ready to share your ideas.

*What elements do you take into consideration when making an oral presentation?*

_____	_____	_____
_____	_____	_____

備攸塚※塚俣※※※

**Some useful expressions**

備攸塚※塚俣※※※

- |                                     |  |
|-------------------------------------|--|
| - It is relevant to mention that... | - One can say that...                        |
| - We need to remember that...       | - Please, consider / notice that...          |
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### *Hints on Making an Oral Presentation*



1. Try to begin with an attention getter (visual, question, fact, statistics).
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4. Prompt interest / Convey confidence (Physical and vocal presence).
5. Provide clear organizational markers.
6. Maintain regular eye contact.
7. Keep focused / Ensure key ideas stand out.
8. Practice, practice, practice (avoiding nervousness, handling anxiety).
9. Do not read your talk.
10. Conclude on a "high note" - include an overall summary and proposed actions or options.
11. Enjoy your presentation - you are a bit like an actor playing a part.



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### Pronunciation key to oral presentation *Fission Reaction*

**neutron:** \ˈnuw-tran \, **nuclear:** \ˈnuw-kliy-ər \, **reaction:** \riy-ˈæk -çən \, **fission:** \ˈfi-shən, -zhən\,  
**reach:** \ˈrēch\, **wind up:** \ˈwīnd-,əp\, **isotope:** \ˈay-sə-towp \, **turbine:** \ˈtər-bən, -ˌbīn\,  
**release:** \ri-ˈlēz\, **former:** \ˈfôr-mər\, **absorb:** \əb-ˈsɔrb, -ˈzɔrb\, **tremendous:** \tri-ˈmen-dəs\,  
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INSTRUCTIONS: Based on the information on your chemical process, prepare an oral presentation (3 min. max.) Take into consideration the *Hints on Making an Oral Presentation*. Be ready to share your oral presentation.



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- \*3.48           ... and then \_\_\_\_\_ solve these...
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- What did you find the most interesting about the content?
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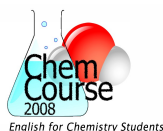
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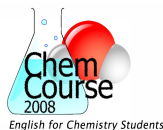
<http://www.chemcourseucr.com> - October 27<sup>th</sup>., 2008 - **Handout #0305a**  
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<b>accident:</b> \æk-sə-dənt\	<b>procedure:</b> \prə-'siy-dʒər\
<b>develop:</b> \dl-'vɛl-əp	<b>process-es:</b> \pra-sɛs-səz\
<b>disposal:</b> \dl-'spow-zəl\	<b>resource-s:</b> \riy-'s ɔr-səz\
<b>employment:</b> \lm-ploy -mənt\	<b>risk:</b> \rɪsk\
<b>equipment:</b> \l-'kwɪp-mənt\	<b>safety:</b> \seyf-tiy\
<b>health:</b> \hɛlθ\	<b>*standard:</b> \stæn-dərd\
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**\*\*\*\*\*Some Hints on Note Making\*\*\*\*\***

1. Concentrate on the "meat" of the subject and forget the trimmings.
2. Notes should consist of key words or very short sentences. Never use a sentence where you can use a phrase. Never use a phrase where you can use a word.
3. Instructors usually give clues to what is important to take down by using **repetition, emphasis, or signal words**.
4. Don't worry about missing a point. If you miss a statement, write key words, skip a few spaces, and get the information later.
5. Have a uniform system of punctuation and abbreviation that will make sense to you. Use a skeleton outline and show importance by indenting. Leave lots of white space for later additions.
6. Omit descriptions and full explanations. Keep your notes short and to the point.
7. Shortly after making your notes, go back and rework (not redo) your notes by adding extra points and spelling out unclear items.
8. Review your notes regularly. This is the only way to achieve lasting memory.
9. Date your notes. Perhaps number the pages.



Ideas freely adapted from: <http://www.dartmouth.edu/~acskills/success/notes.html>

**\*\*\*\*\*Some Examples of Signal Words (discourse markers)\*\*\*\*\***

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• "There are three reasons why...."</li> <li>• "First...Second... Third...."</li> <li>• "And most important ..."</li> <li>• "A major development...."</li> <li>• "On the other hand...."</li> <li>• "On the contrary...."</li> <li>• "For example...."</li> <li>• "Similarly...."</li> <li>• "In contrast...."</li> <li>• "Also...."</li> <li>• "Furthermore...."</li> </ul> | <ul style="list-style-type: none"> <li>• "As an example...."</li> <li>• "For instance...."</li> <li>• "Therefore...."</li> <li>• "In conclusion...."</li> <li>• "As a result...."</li> <li>• "Finally...."</li> <li>• "In summary...."</li> <li>• "From this we see...."</li> <li>• "Remember that...."</li> <li>• "The important idea is that...."</li> <li>• "The basic concept here is...."</li> </ul> |
|---|---|

Ideas freely adapted from: <http://www.fotosearch.com/video-footage/note-taking.html>





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INSTRUCTIONS: Summarize the main ideas of the conference **"Occupational Health and Safety"** using your own words:

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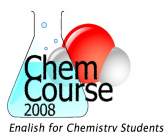
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**INSTRUCTIONS:** Express a professional opinion about the contents of the lecture  
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1. What's the current status of occupational safety policies in Costa Rica?
2. What are the most common accidents related to the chemical industry in Costa Rica?
3. Is it realistic to implement them in Costa Rica in economic terms? Why?
4. What are the (future) implications of industrial safety measures for you as a chemist?
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6. Do you agree or disagree with the lecturer's ideas? Which ideas and why?

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INSTRUCTIONS: Predict the contents of the conference **International System of Units, Symbols and Notation**. Write down your ideas for contents and vocabulary here.



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INSTRUCTIONS: Carefully study the following information.

Quantity measured	Unit	Symbol
Length, width, distance, thickness, etc.	millimeter \ 'mi-lə-,mē-tər\	mm
	centimeter \ 'sen-tə-,mē-tər, sän\	cm
	meter	m
	kilometer \ kə-'lä-mə-tər, ki-; 'ki-lə-,mē-tər\	km
Mass ("weight")*	milligram	mg
	gram	g
	kilogram \ 'ki-lə-\	kg
	metric ton	t
Time	second	s
Temperature	degree Celsius	°C
Area	square meter	m <sup>2</sup>
	hectare	ha
	square kilometer	km <sup>2</sup>
Volume	milliliter \ 'mi-lə-,lē-tər\	mL
	cubic centimeter	cm <sup>3</sup>
	liter	L
	cubic meter	m <sup>3</sup>
Speed, velocity	meter per second	m/s
	kilometer per hour	km/h
Density	kilogram per cubic meter	kg/m <sup>3</sup>
Force	Newton \ 'nü-t'n, 'nyü-\	N
Pressure, stress	kilopascal	kPa
Power	watt	W
	kilowatt	kW
Energy	kilojoule \ 'jül also 'jäu(-ə)l\	kJ
	megajoule	MJ
	kilowatt hour	kW·h
Electric current	ampere \ 'am-,pir also -,per\	A

### \*\*\* More Common Prefixes and Units \*\*\*

Larger and smaller multiples of a unit can be made by adding SI prefixes.

giga / mega / micro / nano / mole / kelvin / candela / deca / tera / exa / pico /

\*\*\* *Active Listening* \*\*\*

1<sup>st</sup> Part

- |  |       |
|--|-------|
| 1. The speaker starts his presentation with an attention getter. | Y / N |
| 2. The purpose of the presentation is clear.                     | Y / N |
| 3. The speaker prompts interest and conveys confidence.          | Y / N |
| 4. The speaker uses signal words effectively.                    | Y / N |
| 5. The speaker maintains regular eye contact with the audience.  | Y / N |
| 6. The speaker ensures key ideas stand out.                      | Y / N |
| 7. The speaker seemed prepared when making the presentation.     | Y / N |
| 8. The speaker concludes on a “high note”.                       | Y / N |

2<sup>nd</sup> Part

1. What is the purpose of the presentation? Explain.
2. What is the speaker's attitude towards the subject? Explain.
3. Make an inference from the lecture.
4. What strategies help your understanding of the lecture? Explain.
5. How helpful are gestures and body language for your understanding? Explain.

3<sup>rd</sup> Part

My notes (main idea, relevant details, key words, examples, signal words, questions, opinion)

**Be ready to give an opinion and/or ask for clarification with regard to the content of the lecture.**

**Keep the following expressions in mind.**

Expressing opinion	Asking for clarification
It is relevant to mention that...	What exactly do you mean by...?
One can say that...	I'm sorry but I don't quite understand what you mean
We need to remember that...	by this / are getting at?
Please notice that...	Could you explain what you mean by this, please?
As far as I'm concerned...	I'm afraid I'm not clear about...
It is usually the case that...	I'm not quite sure I follow you.
The results suggest it is likely that...	I'd like to know if...
	Could you explain why...?

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4. Prompt interest / Convey confidence (Physical and vocal presence).
5. Provide clear organizational / discourse markers.
6. Maintain regular eye contact.
7. Keep focused / Ensure key ideas stand out.
8. Practice, practice, practice (avoiding nervousness, handling anxiety).
9. Do not read your presentation.
10. Conclude on a "high note" - include an overall summary and proposed actions or options.
11. Enjoy your presentation - you are a bit like an actor playing a part!
12. Other: \_\_\_\_\_

*****Some Examples of Signal Words (discourse markers)*****	
<ul style="list-style-type: none"> <li>• "There are three reasons why...."</li> <li>• "First...Second... Third...."</li> <li>• "And most important ..."</li> <li>• "On the other hand...."</li> <li>• "On the contrary...."</li> <li>• "Similarly...."</li> <li>• "In contrast...."</li> <li>• "Also...."</li> </ul>	<ul style="list-style-type: none"> <li>• "As an example...."</li> <li>• "For instance...."</li> <li>• "Therefore...."</li> <li>• "In conclusion...."</li> <li>• "As a result...."</li> <li>• "Finally...."</li> <li>• "Remember that...."</li> <li>• "The important idea is that...."</li> </ul>

## \* \* \* What is Rephrasing? \* \* \*

Adapted from: <http://www.english-at-home.com/speaking/rephrasing>

*Sometimes we say things that other people don't understand, or we give the wrong impression. Don't be afraid to repeat what you're saying, especially if you can do it in a slightly different way!*

*****Expressions you can use to rephrase your ideas*****	
<ul style="list-style-type: none"> <li>• "What I meant to say was..."</li> <li>• "In other words..."</li> <li>• "Let me put this another way..."</li> <li>• "That means..."</li> </ul>	<ul style="list-style-type: none"> <li>• "Let me rephrase that..."</li> <li>• "Perhaps I'm not making myself clear..."</li> <li>• "Let me explain this..."</li> <li>• "Let me give you an example..."</li> </ul>

**- Back to the beginning:** *If you're explaining something, and you realize that the other person doesn't understand, you can use the following phrases:*

- "If we go back to the beginning..."	- "The basic idea is..."
- "One way of looking at it is..."	-

**- If you forget the English word:** *If you forget the word you want to use, you can say:*

- "I can't find the word I'm looking for..."	- "I'm not sure that this is the right word, but..."
- "What I want to say is..."	-

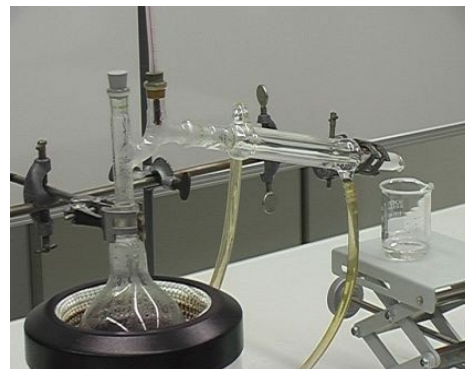
### **INSTRUCTIONS:**

1. Use the following information plus the video in order to present the process of wine distillation to your classmates.
2. Apply the "Hints for Making Oral Presentations" and use rephrasing to help your audience understand the process clearly.
3. You must write down notes and practice with an instructor before presenting in front of the class.

## **The Process of Wine Distillation:**

### **CHEMICALS and MATERIALS:**

Red wine, 500ml distillation flask, thermometer - to 100°C, hole stopper, tripod, beaker 100ml, Liebig cooler, rubber tubing, burner tripod, burner.



### **CONDUCTING THE EXPERIMENT:**

Fill the **distillation flask** with **ca.** 200ml of red wine. Then heat the wine to a **temperature** of 78°C. On **completion** of the distillation, the **distillate** is set **alight**.

### **PROCEDURE:**

Heating the wine takes time. During this, **steam** forms above the **liquid** and **condensates** on the inside of the **apparatus**. As the temperature rises, a liquid is **discharged** by the **Liebig cooler**. This **distillate** will **burn** when set alight.

Distillation **separates** the **alcohol** and the water contained in the wine because of their different **boiling** points. Alcohol (**Ethanol**) boils at 78°C, Water at 100°C. In fact, part of the water does boil at a lower temperature, which is why it is impossible to produce a 100% pure alcohol distillate. The boiling point of Ethanol is higher than that of **Methanol** which can occur in poorly **fermented** alcoholic liquids and is **classed** as **toxic**. This is the reason for **discarding** any liquid collected at temperatures **below** 78° C. Distillation **relies** on the temperature dependent change in state of different **substances**. A liquid is brought to boil **through** heating and a cooler, through lowering the temperature, returns the resultant steam back to its liquid form. As described above, this means different liquids can be separated from each other.

### **DISPOSAL:**

Any residues can be disposed of in the sink.

## Oral Presentation Feedback Form

**INSTRUCTIONS:** Use the following checklist to evaluate and provide feedback on your classmates' presentations by checking either **"Yes"** or **"No"** and examples when needed. Also write down grammatical or pronunciation incorrect examples in the space below.

**Speakers' names:** \_\_\_\_\_

Yes	No	Aspect to evaluate:
		1. Did the presentation begin with an attention getter? If so, what kind? _____ (visual, question, fact, statistics)
		2. Was the purpose of this presentation clear? If so, what was it? _____ (inform, teach, explain, persuade, justify).
		3. Did the speakers keep <b>space</b> , <b>resources</b> , <b>audience</b> , <b>pace</b> , and <b>time</b> in mind? (Circle the ones that apply.) Observations:
		4. Did the speakers prompt interest / Convey confidence (Physical and vocal presence)? (Circle the ones that apply.) Observations:
		5. Did the speakers provide clear organizational markers? Examples:
		6. Did the speakers maintain regular eye contact?
		7. Did the speakers keep focused / ensure key ideas stood out? Observations:
		8. Did the speakers seem nervous or anxious? Observations:
		9. Did the speakers read their presentation?
		10. Did the speakers conclude on a "high note"? - Did they include an <b>overall summary</b> and proposed <b>actions</b> or <b>options</b> ? (Circle the ones that apply.) Observations:
		11. Did the speakers seem to enjoy their presentation?
		12. Did the speakers apply rephrasing when you thought it was necessary to understand better their ideas? Observations:

Phrases or mispronounced words your classmates need to work on:

Comments and advice you want to give to your classmates:

## English Phonemes / iy / and / I /

**I. INSTRUCTIONS:** Repeat the pairs of words and sentences carefully after your teacher. REMEMBER to **SMILE** and feel the tension in your lips when you repeat the words with / iy / and to **RELAX** your muscles as you pronounce the / I / words.

- |                              |                          |  |
|------------------------------|--------------------------|--|
| / iy /                       | / I /                    |  |
| 1. these                     | this                     |  |
| 2. eat                       | it                       |  |
| 3. least                     | list                     |  |
| 4. seat                      | sit                      |  |
| 5. heat                      | hit                      |  |
| 6. feet                      | fit                      |  |
| 7. reach                     | rich                     |  |
| 8. <b>Heat</b> it now.       | <b>Hit</b> it now.       |  |
| 9. Change the <b>wheel</b> . | Change the <b>will</b> . |  |
| 10. Did you <b>feel</b> it?  | Did you <b>fill</b> it?  |  |
| 11. He will <b>leave</b> .   | He will <b>live</b> .    |  |
|                              |                          | 12. Please <b>sit</b> in the <b>seat</b> .   |
|                              |                          | / I /                      /iy/              |
|                              |                          | 13. He <b>did</b> a good <b>deed</b> .       |
|                              |                          | / I /                      /iy/              |
|                              |                          | 14. <b>Phil</b> doesn't <b>feel</b> well.    |
|                              |                          | / I /                      /iy/              |
|                              |                          | 15. Potato <b>chips</b> are <b>cheap</b> .   |
|                              |                          | / I /                      /iy/              |
|                              |                          | *****  |
|                              |                          | 16. <b>He's</b> presented <b>his</b> report. |
|                              |                          | / iy /                      / I /            |

## - Short Test: Discriminating between / iy / and / I / -

**II. INSTRUCTIONS:** Your teacher will read the following sentences using **ONLY ONE** of the choices. Listen carefully and circle the correct one.

- EXAMPLE: You need a new      **wheel**      **will**.  
   /iy/      / I /
- |                      |               |                 |
|----------------------|---------------|-----------------|
| 1. They cleaned the  | <b>sheep</b>  | <b>ship</b> .   |
|                      | /iy/          | / I /           |
| 2. Will he           | <b>leave</b>  | <b>live?</b>    |
|                      | /iy/          | / I /           |
| 3. The boy was       | <b>beaten</b> | <b>bitten</b> . |
|                      | /iy/          | / I /           |
| 4. His clothes are   | <b>neat</b>   | <b>knit</b> .   |
|                      | /iy/          | / I /           |
| 5. They stored the   | <b>beans</b>  | <b>bins</b> .   |
|                      | /iy/          | / I /           |
| 6. I like low        | <b>heels</b>  | <b>hills</b> .  |
|                      | /iy/          | / I /           |
| 7. The children will | <b>sleep</b>  | <b>slip</b> .   |
|                      | /iv/          | / I /           |
| 8. I heard every     | <b>beat</b>   | <b>bit</b> .    |
|                      | /iy/          | / I /           |

Adapted from: Dale, P. and Poms, L. *English Pronunciation for Spanish Speakers*, Prentice Hall, 1985.

---

### Teacher's answer key:

Ex: wheel 1. ship 2. live 3. beaten 4. neat 5. beans 6. hills 7. sleep 8. bit

### **Practice: English Phonemes / iy / and / I /**

**INSTRUCTIONS:** In pairs, read the following paragraph silently. Write either / **iy** / or / **I** / under each **highlighted** syllable/word. Then, take turns to read the text, focusing on the correct pronunciation of each phoneme. While one person reads, the other **monitors** his peer's pronunciation of / **iy** / and / **I** /.

1. ***Ironically**, the science of thermodynamics, of **which** the second law **is only** one part, dates*

-----

2. *to an **era** of technological **optimism**, the **mid**-19th century, when **steam** engines were*

-----

3. *transforming the world and **physicists** such as Rudolf Clausius, Nicolas Sadi Carnot, James*

-----

4. *Joule and Lord Kelvin **developed** a **theory** of energy and **heat** to understand how they*

-----

5. *worked and what **limited** their efficiency.*

-----

### **Practice: English Phonemes / iy / and / I /**

**INSTRUCTIONS:** In pairs, read the following paragraph silently. Write either / **iy** / or / **I** / under each **highlighted** syllable/word. Then, take turns to read the text, focusing on the correct pronunciation of each phoneme. While one person reads, the other **monitors** his peer's pronunciation of / **iy** / and / **I** /.

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3. *transforming the world and **physicists** such as Rudolf Clausius, Nicolas Sadi Carnot, James*

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4. *Joule and Lord Kelvin **developed** a **theory** of energy and **heat** to understand how they*

-----

5. *worked and what **limited** their efficiency.*

-----



**INSTRUCTIONS:** For the *60-Second Science* podcast about the 2008 Nobel Prize in chemistry, comment with your classmates and instructor the following questions. Use the phrases below to express your opinion.

**Remember:**  
***Think fast, it's a Blitz Task!***

- a. What did you find the most interesting about the content?
- b. How is the content relevant to your major/field?
- c. Express your comments or professional opinion on the subject
- d. Key vocabulary:

**to light up – flashlight – nerve cells – spread - cancer cells – emeritus - jellyfish – to glow - genes**  
**- fluorescent – proteins - to engineer – palette – to enable – process(es)**

<b>** Useful Ways to Express your Opinions **</b>	
- What do you think?	- I think that... / I believe that...
- Is that right?	- I am (not) sure about that.
- Do you agree with me?	- I agree. / I disagree (with you.)
- Excuse me, but...	- I don't think you're right.
- This is relevant / important because...	- They could have talked about...
- This (also) relates to...	- They could have (also) mentioned...
-	-

### Reference:

*Scientific American Online Magazine -*

Podcast: *How Green was the Nobel Prize in Chemistry*, October 8, 2008 -

<http://www.sciam.com/podcast/episode.cfm?id=how-green-was-the-nobel-prize-in-ch-08-10-08>

### Podcast's transcription:

*The Nobel Prize in chemistry goes to three men who revolutionized molecular life science, Japan's Osamu Shimomura and Americans Martin Chalfie and Roger Tsien. They developed tools to light up and see individual proteins inside living cells. These tiny molecular flashlights make it possible to study numerous events that take place in cells and whole organisms that were previously invisible—such as the development of nerve cells or the spread of cancer cells.*

*In 1962 Shimomura, now emeritus professor at the Marine Biological Laboratory at Woods Hole, discovered that jellyfish produce a green fluorescent protein, GFP, that glows when exposed to ultraviolet light. Some 30 years later, Columbia University's Chalfie showed that the GFP gene could be put into any organism. By making sure the fluorescent protein was expressed at the same time as other proteins of interest, researchers could literally light up events they want to follow. Then Tsien, at the University of California, San Diego, engineered fluorescent proteins in various colors. The multicolor palette enables researchers to follow multiple biological processes at the same time.*

—Steve Mirsky

## **Answer Key to “Practice: English Phonemes / iy / and / I /”**

**INSTRUCTIONS:** In pairs, read the following paragraph silently. Write either / iy / or / I / under each **highlighted** syllable/word. Then, take turns to read the text, focusing on the correct pronunciation of each phoneme. While one person reads, the other **monitors** his peer's pronunciation of / iy / and / I /.

1. *Ironically*, the science of *thermodynamics*, of *which* the second law *is only* one part, dates

-----I-----iy-----I-----I-----I-----iy-----

2. to an *era* of technological *optimism*, the *mid*-19th century, when *steam* engines were

----- (iy) ----- I ----- ə ----- I ----- I ----- iy ----- iy ----- (ə) -----

3. *transforming* the world and *physicists* such as Rudolf Clausius, Nicolas Sadi Carnot, James

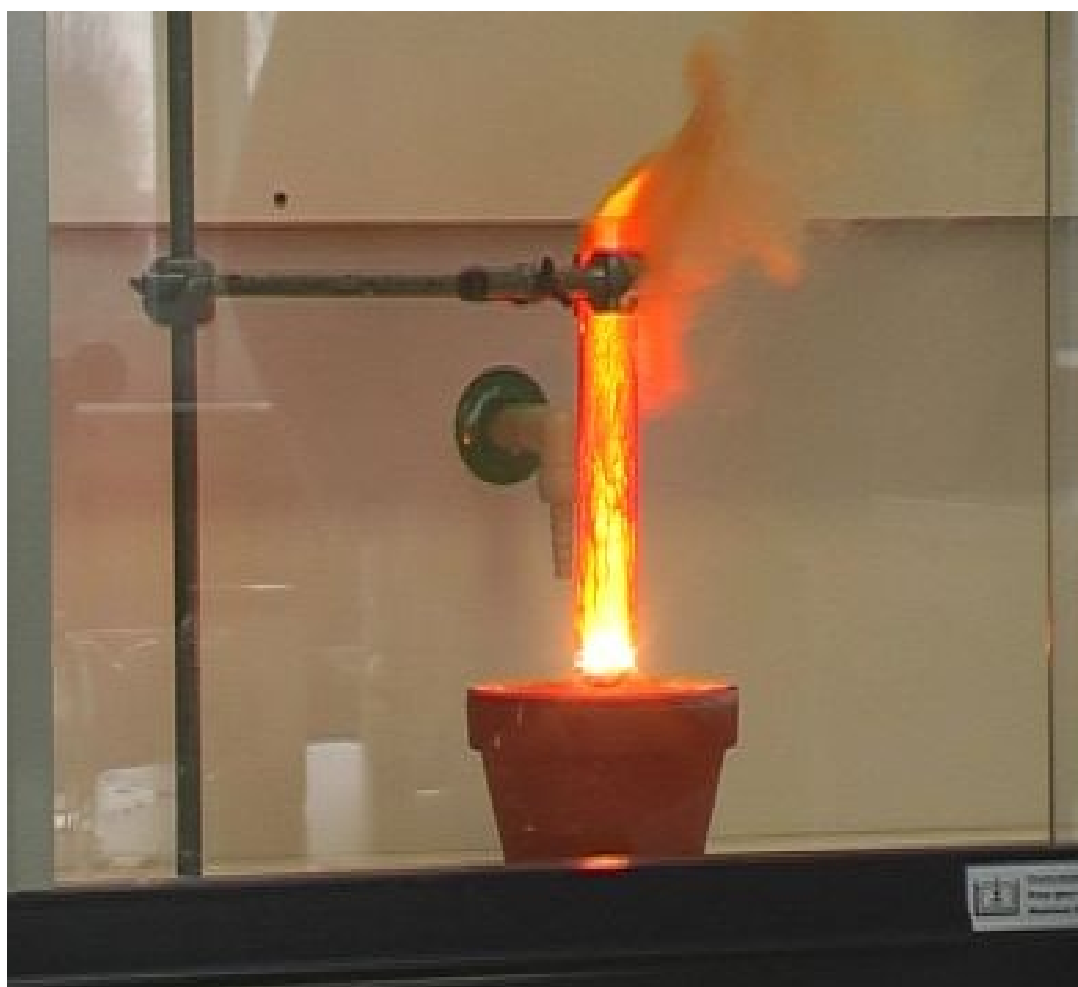
-----I-----I-----ə-----I-----

4. Joule and Lord Kelvin *developed* a *theory* of *energy* and *heat* to understand how they

-----I(iy)-----iy-----iy-----iy-----

5. worked and what *limited* their *efficiency*.

-----I (ə) I-----I-----iy-----



INSTRUCTIONS: Write some examples of equipment and verbs that you think are needed to explain the processes “*Aluminium and Bromine*” and “*A Chemical Drink*”. Be ready to share your ideas with the rest of the class.

**EQUIPMENT / MATERIALS**

**VERBS**

INSTRUCTIONS: Write some examples of equipment and verbs that you think are needed to explain the processes “*Aluminium and Bromine*” and “*A Chemical Drink*”. Be ready to share your ideas with the rest of the class.

**EQUIPMENT / MATERIALS**

**VERBS**

INSTRUCTIONS: Write some examples of equipment and verbs that you think are needed to explain the processes “*Aluminium and Bromine*” and “*A Chemical Drink*”. Be ready to share your ideas with the rest of the class.

**EQUIPMENT / MATERIALS**

**VERBS**

INSTRUCTIONS: Study the following key vocabulary.

aluminum foil	amount	bear in mind	bubble	earthenware pot
funnel	pea size	pipette	place	pour
reaction	remaining	sand	scrunching	sparkling
stirrer	thick	test tube	tongs	turns

INSTRUCTIONS: Fill in the blanks with the appropriate word

1. \_\_\_\_\_ a few crystals in the bottom of the cup.
2. The acid \_\_\_\_\_ the solution brown.
3. A little Bicarbonate of soda makes the water \_\_\_\_\_.
4. Use the \_\_\_\_\_ to mix the liquid.
5. First, you have to \_\_\_\_\_ a piece of aluminum foil.
6. \_\_\_\_\_ a few millilitres of Bromine into the test tube.
7. Use the \_\_\_\_\_ to add the aluminium foil to the test tube.
8. If necessary, use a pipette, but \_\_\_\_\_ it might not work quite well.
9. Sulfite ions \_\_\_\_\_ in the solution work as reductors.
10. You can pour the liquids easily with a \_\_\_\_\_.

INSTRUCTIONS: Study the following key vocabulary.

aluminum foil	amount	bear in mind	bubble	earthenware pot
funnel	pea size	pipette	place	pour
reaction	remaining	sand	scrunching	sparkling
stirrer	thick	test tube	tongs	turns

INSTRUCTIONS: Fill in the blanks with the appropriate word

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2. The acid \_\_\_\_\_ the solution brown.
3. A little Bicarbonate of soda makes the water \_\_\_\_\_.
4. Use the \_\_\_\_\_ to mix the liquid.
5. First, you have to \_\_\_\_\_ a piece of aluminum foil.
6. \_\_\_\_\_ a few millilitres of Bromine into the test tube.
7. Use the \_\_\_\_\_ to add the aluminium foil to the test tube.
8. If necessary, use a pipette, but \_\_\_\_\_ it might not work quite well.
9. Sulfite ions \_\_\_\_\_ in the solution work as reductors.
10. You can pour the liquids easily with a \_\_\_\_\_.

## *Teacher's Answer Key- Handout #0402b*

1. **Place** a few crystals in the bottom of the cup.
2. The acid **turns** the solution brown.
3. A little Bicarbonate of soda makes the water **bubble**.
4. Use the **stirrer** to mix the liquid.
5. First, you have to **scrunch** a piece of aluminum foil.
6. **Pour** a few millilitres of Bromine into the test tube.
7. Use the **tongs** to add the aluminium foil to the test tube.
8. If necessary, use a pipette, but **bear in mind** it might not work quite well.
9. Sulfite ions **remaining** in the solution work as reductors.
10. You can pour the liquids easily with a **funnel**.

## INSTRUCTIONS:

1. Use the following information plus the video to prepare a 3-minute oral presentation about this chemical process.
2. Use **two** expressions to rephrase your ideas. Apply the “Hints for Making Oral Presentations”.
3. Practice with your instructor before presenting in front of the class.

## A Chemical Drink

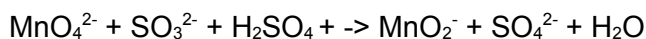
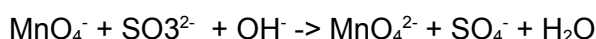
### The Experiment:

First, place a few Potassium Permanganate crystals in the bottom of the cup. Then fill it with water up to a third. Next, add a few millilitres of Potassium Hydroxide solution and a small amount (tip of a spatula) of sodium Sulfite – the solution turns green, like sweet juice. Adding Sulphuric acid turns the solution brown, like tea. Adding further Sulphuric acid then decolours the solution until it is clear like water. Finally, a little Bicarbonate of soda makes the water bubble – the sparkling wine at the end of our row of drinks.

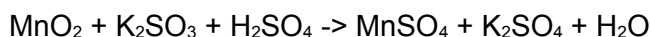


### The Results:

In a first step, the Potassium Permanganate, in an alkaline environment, is reduced by the sodiumsulfite. The  $\text{MnO}_4^{2-}$  ions are responsible for the green colour.



In the acid environment provided by the Sulphuric acid, the  $\text{MnO}_4^{2-}$  ion reacts and becomes  $\text{MnO}_2$ . Sulfite ions remaining in the solution work as reductors. The  $\text{KMnO}_2$  emerging from the reaction is brown. Adding further acid causes this reaction and the colourless manganesesulfate:



### \*\*\*\*\*Expressions you can use to rephrase your ideas\*\*\*\*\*

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>● "What I meant to say was..."</li> <li>● "In other words..."</li> <li>● "Let me put this another way..."</li> </ul> | <ul style="list-style-type: none"> <li>● "Let me rephrase that..."</li> <li>● "Perhaps I'm not making myself clear..."</li> <li>● "Let me explain this..."</li> </ul> |
|---|---|

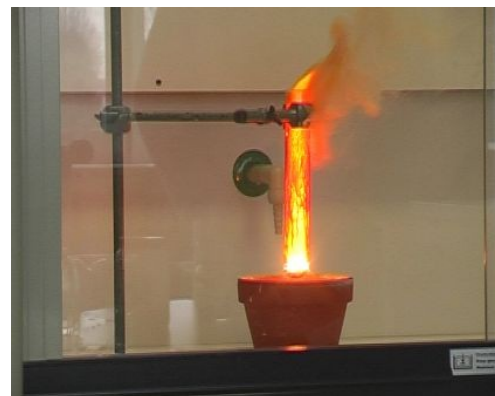
## INSTRUCTIONS:

1. Use the following information plus the video to prepare a 3-minute oral presentation about this chemical process.
2. Use **two** expressions to rephrase your ideas. Apply the “Hints for Making Oral Presentations”.
3. Practice with your instructor before presenting in front of the class.

## Aluminium and Bromine

### The Experiment:

First, secure a thick walled test tube in a stand and place it under the extractor fan. After that, place an earthenware pot or beaker filled with sand underneath the test tube. Then prepare a piece of Aluminium foil by scrunching it up to about pea size. Later, pour a few millilitres of Bromine into the test tube (so it reaches up 1 to 2 cm) very carefully. If necessary, use a funnel, but bear in mind that a pipette is not suitable as the Bromine is too heavy. Next, use the tongs to add the Aluminium foil to the test tube. Finally, close the extractor fan.

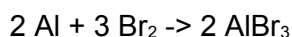


### The Results:

A violent reaction begins after 5 to 10 seconds. Emitting flames and smoke, the ball of Aluminium foil burns up, all the while dancing across the surface of the Bromine. The Bromine and Aluminium foil are subject to the following redox reaction:

Oxidisation:  $2 \text{Al} \rightarrow 2 \text{Al}^{3+} + 6\text{e}^-$

Reduction:  $3 \text{Br}_2 + 6\text{e}^- \rightarrow 6 \text{Br}^-$



The Bromine is reduced to Bromide ions and the Aluminium is oxidized into Aluminium ions. The ions form a salt, Aluminium Bromide.

*****Expressions you can use to rephrase your ideas*****	
<ul style="list-style-type: none"> <li>• "What I meant to say was..."</li> <li>• "In other words..."</li> <li>• "Let me put this another way..."</li> </ul>	<ul style="list-style-type: none"> <li>• "Let me rephrase that..."</li> <li>• "Perhaps I'm not making myself clear..."</li> <li>• "Let me explain this..."</li> </ul>



## Oral Presentation Feedback Form

**INSTRUCTIONS:** Use the following checklist to evaluate and provide feedback on your classmates' presentations by checking either “**Yes**” or “**No**.” Also write down grammar or pronunciation mistakes in the space below.

**Speakers' names:** \_\_\_\_\_

Yes	No	Aspect to evaluate:
		1. Did the presentation begin with an attention getter? If so, what kind? _____ (visual, question, fact, statistics)
		2. Was the purpose of this presentation clear? If so, what was it? _____ (inform, teach, explain, persuade, justify).
		3. Did the speakers keep <b>space</b> , <b>resources</b> , <b>audience</b> , <b>pace</b> , and <b>time</b> in mind? (Circle the ones that apply.) Observations:
		4. Did the speakers prompt interest / Convey confidence (Physical and vocal presence)? (Circle the ones that apply.) Observations:
		5. Did the speakers provide clear organizational markers? Examples:
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		8. Did the speakers seem nervous or anxious? Observations:
		9. Did the speakers read their presentation?
		10. Did the speakers conclude on a "high note"? - Did they include an <b>overall summary</b> and proposed <b>actions</b> or <b>options</b> . (Circle the ones that apply.) Observations:
		11. Did the speakers seem to enjoy their presentation?
		12. Did the speakers apply rephrasing when you thought it was necessary to understand better their ideas? Observations:

Phrases or mispronounced words your classmates need to work on:

Comments and advice you want to give to your classmates:

INSTRUCTIONS: For the *60-Second Science* podcast about **The Nobel Prize in Chemistry**, comment with your classmates and instructor the following questions. Try to use the phrases below to express your opinion. **Remember: *Think fast, it's a Blitz Task!***

- What did you find the most interesting about the content?*
- How is the content relevant to your major/field?*
- Express your comments or professional opinion on the subject*
- Glossary:*

**light up-tiny-spread-emeritus-glows-engineered-proteins-palette-enable-such as-**

<b>** Useful Ways to Express your Opinions **</b>	
- What do you think?	- I think that... / I believe that...
- Is that right?	- I am (not) sure about that.
- Do you agree with me?	- I agree. / I disagree (with you.)
- Excuse me, but...	- I don't think you're right.
- This is relevant / important because...	- They could have talked about...
- This (also) relates to...	- They could have (also) mentioned...

INSTRUCTIONS: For the *60-Second Science* podcast about **The Nobel Prize in Chemistry**, comment with your classmates and instructor the following questions. Try to use the phrases below to express your opinion. **Remember: *Think fast, it's a Blitz Task!***

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**Report for Session #0103.** Class taught on August 18, 2008 by O.B.  
Unit # 1: "How Can I Help You?" - [Http://www.chemcourseucr.com](http://www.chemcourseucr.com)

***Reflection on my lesson:***

I would like to start by saying that I felt very comfortable and confident during the class. I have to admit that this is my first experience with ESP, though. In general terms, I believe that ESP is quite a challenge for novice teachers. Sharing the floor with experts in the field of chemistry and being equals and all the subtleties this situation implies is a whole new experience for me.

***The Lesson***

We started the lesson by checking homework (basically students had to bring names of difficult products they usually work with in order to spell them for the rest of the class). I considered the activity successful because all students brought the names of their products. Students were able to spell the names of their products correctly. Three volunteers were chosen for the activity. When planning the activity, we did not foresee that the pronunciation of some of these products would be difficult (geldanamycin for example). We need to come up with a list of common products and work on the proper pronunciation of these words.

Next, we watched a short video "Using the customer's name" to activate schemata. The content and the vocabulary of the video were accessible for students. Students were able to understand the video and talk about the content of the video. We talked about the importance of using the customer's name over the phone in order to establish a relationship. It is relevant to mention that students had some subject-verb agreement mistakes, though.

Then we went over some numbers and prices. I focused on the correct pronunciation of 15 vs. 50, 16 vs. 60 and structures such as two thousand five hundred vs.

twenty five hundred. We use our feet when pronouncing 19 vs. 90. Students seemed to enjoy this simple exercise. These students do not normally do these kinds of exercises in their major.

Later, we checked some useful expressions to ask for repetition, existence of stock supplies, and confirmation. When eliciting more expressions from students, I was certainly amazed by the amount of extra phrases they provided during the exercise. This demonstrated us that this one is a significant task for them. Besides, when doing the role-play (task), students really took advantage and benefited from all the phrases in the chart. Once again we notice some subject-verb agreement and word choice mistakes, though. After students reported back to the class, we opened a five-minute window to talk about this situation and to correct mistakes.

When commenting on the performance of the conversations and the problems encountered in the task, students were able to communicate effectively their ideas. We consider this an advantage of our students. The fact that their communicative competence allows them to express ideas is relevant to raise awareness and develop metacognitive activities like round-table discussions. Some students mentioned that it is important to identify yourself (some students did not do this), to be polite and, at the same time, to establish a relationship with customers.

During the language focus activity, some students did not notice any difference between the two intonation patterns. I had to read the set of questions two more times for them to notice the difference (I had to exaggerate a bit). One of them came up with the correct answer. It is interesting to notice that when students were performing the task, they were pronouncing the sentences correctly. Students really enjoyed the activity in which they had to use their hands to show the correct intonation patterns. Our students do take advantage of TPR activities. For students it was fairly simple to come up with the

grammatical rule for these intonation patterns. They even provided more auxiliaries for y/n questions and wh-words for information questions.

I believe that the final video clearly summarized some of the elements present in the task. I do like these videos because they are short (2 min.), customer-service oriented and easy to digest.

In general terms, one can conclude that the objectives were met and students were able to perform the task successfully. I believe students enjoy this approach because it is very specific for them. This framework lets students perform and master real tasks within relatively short periods of time. This keeps motivation high and it is definitely more efficient for them.



### **Reflection on my lesson:**

My first class observed by our mentor teachers left a sweet taste in my mouth. I think that the class activities were performed with ease and enthusiasm by our students. In addition, I think activities were well structured and meaningful to them. This was obvious by their sense of involvement and by the good rhythm that the class kept the whole time.

To the visiting professor, the group evidences a great level of participation and a great sense of community. In addition, their use of English as intermediate students allows them to participate with minor difficulties (a few questions were asked in order to check pronunciation or instructions). In general terms, she found the classes well organized and well managed. Another aspect she pointed out was our enthusiasm and vigorous way of teaching. On the other hand, she suggested us to take more advantage of the assistant teacher as a monitor to the students' production, and to allow the students a longer preparation before watching the videos. This means stating clearly our expectations as teachers, the task they need to perform when watching the video, and dealing with difficult vocabulary in advance in order to be able to focus on the subject content without having to struggle with the language content itself.

As the teacher, I think that students liked the lesson because the materials and contents reflected their interests and the real tasks they will eventually perform in their professional life. This means that our Needs Analysis from last semester was precise and useful. The use of technology (which would be continuous during the course) and the innovative approach we have designed for the course and activities are also key points to the class success. The videos, handouts, and brochures the students used were appropriate for their level of language development and for their specialized interests. As future improvements, we think that a handout with useful vocabulary for the videos would facilitate things for students, and also help them develop a sense of confidence in their own language capabilities faster and easier. Time, on the other hand, remains our main concern in the classroom since there were moments when we had to rush in order to cover all the activities that had been included in the lesson plan.



***Reflection on my lesson:***

I do believe that by now our students have a clear understanding of the different steps and features involved in a conversation with regard to products and services within the field of chemistry, especially when it comes to play the role of the chemical supplier. It is relevant to mention that we already started the closure of unit one.

***The Lesson***

This lesson was intended to provide students with a significant amount of practice of the different linguistic features studied in previous lessons. After completing the first activity, we noticed that some students had doubts with the use of adjectives and nouns with regard to units of measurement. Even though this was not originally planned, we came up with a chart of nouns and adjectives so students could notice the difference (length-long, short/height-high, short/width-wide/weight-heavy, light/depth-deep). At that point, we considered it was important for students to clarify these relevant concepts. Next, we went through some questions to practice these concepts. I think students appreciated the fact that we took the time to clarify all their doubts. I would say it is very obvious that our students need to answer all the whys before going on (probably because of their scientific background).

During the second activity, students had the opportunity to review useful expressions previously studied. Even though this activity was a bit out of context, students seemed to master all the structures quite well (some pronunciation problems still remain, though).

Next, we did not have time for the fourth activity. Basically when doing the third activity, students were providing their own examples with the modals explained: "Teacher

this *may* has the same meaning as in *May I go to the bathroom?* and *May I have your name?*” Personally I think this is positive in the sense that they are relating the modals to the vocabulary they usually work with. Students also wanted us to provide them with more meanings and modals (would and ought to). I do believe students benefited from the activities in the sense that they did realize that one modal may have different meanings depending on the circumstances. I still think that an extra practice where they can produce their own sentences with modals in a more free-environment is required, though (the kind of activity in which they “forget” about the language and concentrate on the task to find ways to convey meaning using modals properly).

Next, we moved into the computer lab. One has to acknowledge that technology lures people, especially young-adults. Of course, you need a solid and real purpose to use any kind of technology in a language classroom. In our case, we wanted to provide our students with a sense of reality. We wanted them to experience the task from a real perspective (not so pedagogical). We could not complete the activities to be performed in the lab because we experienced some problems. First, we did not have access to the net. Then the vast majority of students did not register in the blog as previously requested. Since this is a requirement of the blog to post messages, we decided to take advantage of the time to register students in the blog. Besides, since this was students’ first contact with a blog (for some of them), we also explained how this particular blog works. Students were asked to post a trail message so they had the opportunity to experience what a blog is and how it works.

Finally, it is important to notice that most of the times teachers plan something, but a very different thing happens in class (not everything goes according to the plan). Language teachers need to be ready for this common situation. Besides, teachers need to have the ability to go over relevant aspects of the content previously studied in order to provide feedback so students perceive lessons are productive and meaningful.





***Reflection on my lesson:***

I would like to start by saying that this was not a typical class – that is, we only had five students in the class. One has to acknowledge that this is a great number of students to work with. One can really provide learners with personalized feedback and attention.

With regard to the lesson, our students took advantage of predicting, indeed. They were able to come up with a lot of ideas. This was significant to activate their schemata. I do believe it was necessary to make the strategy more obvious, bring it to the surface, and explain it during the language focus stage, though. In other words, I believe that our pupils could have benefited more from a more formal and conscious explanation of the strategy at the end of the activity. This is something the ESP practitioners are going to work with when dealing with units two and three.

Next, I thought students were going to experience some problems when working with prepositions (at, in, and on). Obviously, this was not the case. Our students mastered the usage of these prepositions very accurately. Besides, we finished the class with a very general review of previous elements studied in class. We basically recycled some activities to provide students with more practice and input which are relevant to successful SLA.

Then it is significant to mention that students have a clear understanding of the different features present in conversations with customers when providing information (dimensions, prices, existence, characteristics, confirmation, clarification, intonation, politeness and formality) about chemical products and services.



### **Reflection on my lesson:**

This class was very satisfactory for our students, the observers, and for my teammate and me. Our students found the class activities very varied since we were able to divide the lesson into two sections: a first part that included two videos they would discuss; and a second part at the computer laboratory for them to engage in open, written communication. With this class, in fact, Unit 1 came to an end.

For our observers, both the visiting professor and a classmate from the Master's Program, the class reflected a dynamic, rich environment where technology was put to use in a meaningful way. The richness of materials and tasks allowed for pair work, group discussion, and individual work too. Moreover, our observers were greatly pleased with our fortunate circumstances: not only did we have a modern, big, and well-illuminated classroom, but we also had video, audio, and computer equipment at our disposal. This of course, in order to be productive and meaningful for the students, demands good planning and even multi-task performance: in this sense the teacher acted as director, assistant, supervisor, discussion conductor, motivator, and even as participant in the computer laboratory. In addition, the Assistant Teacher was very collaborative in order to help the class develop smoothly in terms of preparing the equipment and supervising the best use of technology in order to prevent unexpected difficulties.

Our observers suggested us to use the board in a more organized fashion: writing in bigger letters, using clearer handwriting, and erasing whatever contents were not relevant to the task being performed. In addition, taking more time for reading instructions more carefully, making students repeat in a choral reading the glossary for our videos, and trying to speak more slowly at times were important aspects that they pointed out. In this sense, we realized once again that time is our most formidable enemy: in spite of trying to fulfill all tasks in the pre-established way within the allotted time frames, the last part of our discussion (meta analysis) was assigned partially as homework. This means that the final analysis and reflection on e-mail communication and the blog-related activities will have to take place during our next class. Although covering the necessary contents and activities are key factors in order to keep the course flowing as planned, it is vital to consider also that rushing may do more harm than good. Thus, some activities may be carried out during the following lessons in order to have students make the most out of class time. In addition, this opens an extra dimension to homework: both as a refresher of contents, and as part of out-of-the-classroom activities that will reinforce classroom learning.



***Reflection on my lesson:***

I would like to start by saying that we had attendance problems (only five students came to class). Besides, students did not do their homework as previously requested. With regard to this, it is important to mention that a teacher needs to be ready for situations like these ones. I decided the homework was important so I gave students some time to make the homework. I basically asked them to pair up in order to go over the communications. The learners were able to provide a variety of suggestions in relation to politeness, formality, and spelling of the conversations.

Then we moved on to the classroom. The first activity was not that successful. I think students would have benefited more from actual past participles verbs from the text. We did get valuable information on the production of the ed morpheme, though.

Besides, activity three was very productive in the sense that students were able to go over different strategies they use when reading in English (raising awareness). Students were communicating effectively with the aid of useful expressions. They came up with thought-provoking ideas. They do manage quite an amount of strategies when reading in English.

In general terms, this was a very good lesson for me (revealing one). I did take advantage of the session in the sense that I am more aware of the subtleties of the reading process (teaching/learning).

## Reflection # 5

by Olmedo Bula / Class date: September 17<sup>th</sup> / 0203

I would like to start by saying that the pace of this class was quite appropriate. The first activity was intended to introduce the verbs to be used in the reading activities and to provide students with an opportunity to recognize and master the three different pronunciations of the *ed* morpheme of those verbs. One can say that students really mastered the rule. They still need more practice to master the sounds, though.

Besides, our students are really skillful when it comes to predict and skim a text. This time students were asked to come up with their own ideas and suggestions. During activity four, pupils were asked to match regular past participle verbs from the reading with their corresponding synonyms. We wanted students to get familiarized with the meaning of these (one student noticed that a synonym was incorrect. I basically eliminated this synonym from the list and provided a correct one) and to move more in the class. This activity was very successful in the sense that students did understand the different meanings. This activity also provided a significant amount of movement to our class (at this time of the day, I do believe this kind of activity is important to any language class).

Next, pupils were asked to read the article to provide an oral summary of it. It is true that students constructed thorough summaries. We need to challenge them with more complex and longer presentations perhaps (a jigsaw reading in which they have to cooperate to reach a common goal might work quite well here).

More work with regard to some features related to the form of the presentations (greeting, closure, eye contact) is required, though.

Guessing meaning from context is relevant for our students when reading in English, indeed. Activity seven was intended to provide students with practice in order to use and master the strategy. This activity was productive in the sense that pupils were able to guess and deduce meaning from context using the given clues. During the following classes, we will emphasize the use of the strategy even more basically because of the amount of articles students read.

We did not have time to go over the language focus activity. This stage will be covered during the following session due to the importance of the passive voice usage in chemistry articles (scientific use). We finished the class with the preparation of the final quiz and the homework.

In general terms, I felt very comfortable teaching this lesson. The vast majority of the specific objectives were accomplished. Finally, I think our students could benefit more from an open class (or two) in which they bring the topic/linguistic feature/strategy to be studied in class.



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### **Reflection on my lesson:**

This lesson turned out to be a successful experience for both students and teacher. The variety of activities and the pacing of the lesson itself provided a stimulating environment where students found themselves engaged in the different tasks. The first part of the lesson was focused on reading and word-attack strategies. For the last part, the innovation of the "Blitz Task" was not only refreshing in terms of content and procedure, but it also allowed students to transfer their reading skills to a listening text.

This time we introduced a new vocabulary skill: inferencing, in order to complement others studied so far like morphological and grammatical function analysis. In addition, the tasks assigned required students to integrate these strategies along with skimming and scanning, providing students with the opportunity of proving themselves how much they had learned so far. In general terms I was very satisfied by their analytical and critical responses: they seemed to be enjoying the challenges and they were also finding these strategies useful and therefore, meaningful. In addition, vowel reduction (schwa) was the main phonetic target since our students are quite fluent but they still need to work on accuracy at this point. In that sense, I insisted on the importance of polishing their pronunciation in order to appear more professional and to complement their excellent use of grammar and their wide range of vocabulary.

Our observing professor suggested us to emphasize the importance of applying these strategies in real life in order for them to have a clearer notion of what they do and why inside and outside the classroom (metacognitive skills.) In addition, she liked the way we managed time and the decisions we made related to activities that would have to be postponed for a coming session. Regarding the Blitz Task, when our students needed to express their professional opinions, there was insufficient useful language for them to rely on: in that sense our professor advised us to include it in our handouts. This way, our students will be learning useful phrases by applying them in their real-time tasks, which obviously, will stress on their minds the usefulness and relevance of both tasks (strategies) and supporting materials (language content.) Another important aspect that needs to be addressed are the ways in which we as teachers can instill on our students the urge to do homework and to take outside-the-classroom activities seriously. That is one of the reasons I devoted the first minutes of the lesson to talk with the students and to come to a "friendly" agreement, that is, a "contract" between all of us, so they could attend classes, participate, do their homework, and learn. Thus, they could also feel that our time is well spent, and more importantly, that they are learning skills and contents that will help them in the future.





***Reflection on my lesson:***

This was a productive class. Students are reducing vowels effectively, indeed. They have understood the importance of vowel reduction (sound more natural). During this lesson, we introduced paraphrasing as a reading strategy. First, we went over an example of paraphrasing. Next, students were asked to paraphrase some short paragraphs in order to rehearse the strategy. Next, students paraphrased the most important ideas from an easy-to-understand video. It was productive in the sense that learners were successfully paraphrasing ideas and reducing vowels. Students were given time to practice what they actually had to say before getting engaged in the task.

The following activity was intended to provide students with more practice to master paraphrasing. Students were assigned different paragraphs to paraphrase them. They were also asked to select five words to practice vowel reduction. During the feedback session, we were told that students could have benefited more from just paraphrasing one paragraph. A context was also necessary to give the task a sense of reality. I agree with this in the sense that learners would be able to compare and analyze the different examples of paraphrasing and their effectiveness within a more real context (not so pedagogical). Next, we designed an activity to raise awareness on the importance of these elements (showing understanding of the topic, sound more natural).

Finally, we moved to the computer lab. Since we are closing the unit, we intended to provide students with an opportunity to construct a summary from an article to re-create a real task in which they had to use all the strategies previously studied. Students were asked to post their summaries in the blog.

Due to time constraints, we could not work on main ideas and supporting details. The vast majority of objectives were achieved. Students were able to review and practice

vowel reduction, apply paraphrasing and construct a written summary using reading strategies.



### **Reflection on my lesson:**

With this lesson Unit #2 came to a closing. Due to this, and to the fact that classes on Wednesdays have not been as productive as expected due to management issues, I needed to cover more ground than usual in this class. Therefore, the topics of main and supporting ideas, paraphrasing (review), and writing an abstract were addressed. These, in addition to the Blitz Task provided *four* complete task cycles. The main limitation we found was that the class had to start 15 minutes late (since Ss did not show up on time.) As a result, abstracts were introduced and briefly analyzed (which was part of the lesson plan, anyway), and the writing task itself was assigned as homework to be posted on the ChemCourse's blog.

Regarding our objectives, they were clearly ambitious, that was our intention. We consider that they were covered satisfactorily (all but writing the abstract in class). Although analysis could not be extended longer or deeper (for example, asking Ss to write on the board their paraphrases), this was the best way to do it due to several reasons. First, time limitations: there were other things more important to address. Second, one of the most sensitive aspects for our students is "keeping a professional image." This means that criticizing publicly their work (even in a "non-threatening environment" such as our classroom) could be very delicate and actually de-motivating for them. They do not like to be exposed in front of their classmates who in real life are their colleagues and more than that, their professional competitors. Finally, our Ss' level of cognitive development and language proficiency was more than appropriate for the task. Lingering more on this would have been quite patronizing and boring both for Ss and T. Feedback was provided orally and collectively, nevertheless. All Ss had the chance of presenting their work, and receiving comments from both instructors and classmates without having to be "under the spotlight."

Regarding the Blitz Task, this is a cycle that will be included every Monday as an *extra* activity. Listening comprehension of monologues was addressed in our syllabus in Unit 3, but we decided to create and include this innovative concept of "Blitz Task" in order to satisfy their interests and needs without disrupting the normal flow and direction of our course. Although the Blitz Task can be improved, it has been very successful in terms of challenge and motivation for our Ss. They have shown that they really enjoy the demands of listening to a compressed newscast and to rapid, natural speech. Once again, we decided not to provide them previously with any kind of language because that is the way this happens in real life: chemists may read just the title, do unconscious brainstorming, and then, face the actual text. Their schemata are

activated by our pre-task. Scaffolding, analysis, and language focus are addressed during the task and post-task themselves. This is what can be done within 25 minutes. Changing this design would mean changing the concept and dedicating at least 40 minutes to a complementary activity.

With this said, the suggestions provided by our observing professor are useful but must be analyzed within this context. For example, “connecting the class to real-life tasks” is quite obvious in our class: during the pre-task cycle, I ask Ss for example, “When is inferencing used and for what purposes in your daily duties?” Afterwards, during the post-task, I ask them these questions again. I also inquire if they have found this applicable to their academic or professional environment. Although settings such as role-play criteria can be useful for motivation (“You are student and you have to present a term paper, etc.”), it is vital not to underestimate our Ss' psychological maturity in the first place, and in the second, our own teaching styles during the course so far. Both students and teachers have grown used to each other, and although other elements like fantasy and enactments can be included, there is no point in changing what has been working successfully and meaningfully so far. Our tasks follow a clear path: reading strategies that are built on top of the previous ones: skimming and scanning first, then vocabulary skills, inferencing at the sentence level; later, summarizing, paraphrasing, and finally, writing abstracts and quotations.

It is important to state too that our course is learning-centered and skill-centered. Our Ss are learning strategies that can be transferable from English to Spanish and viceversa, and from their academic to their professional needs as well. These skills and strategies have been and will be recycled several times, according to each task. ChemCourse 2008 is also an introductory course: we are covering speaking strategies (Customer Service skills on the phone); interpreting articles and texts; writing e-mails; writing abstracts, quotes, and bibliographies; listening comprehension (Blitz Task); listening skills for lectures; and skills for delivering short presentations. Therefore, we are not able to dedicate as much time as we would like for some activities and topics, but we are definitively providing Ss with a wide repertoire of valuable tools. Actually activities such as the Blitz Task and writing abstracts were added to our syllabus due to the Ss' very recent request only two weeks ago.

To conclude, we are quite grateful because our professor's suggestions have been very useful. They have allowed us to reflect on our work and to find further justification for the way we design and deliver our lessons: nobody knows a class better than its own teacher; the way Ss think and feel; or their expectations and needs. Our “audience” is very demanding and their time, just like ours, is quite precious. They are scientists who need clear and concise explanations. We are educators providing a professional, ESP class. In addition, our syllabus was created tailored to

their needs. For sure we will include other linguistic aspects in our class (such as reviewing the *-ed* morpheme, word linking, and others), and focus on a single new useful phrase they can apply for the Blitz Task discussion. We will also continue to keep an eye on the “setting” and particularly, on the connections of our classes with real-life tasks. This final aspect, once again, is contemplated in the long term (classes within units within the course itself), more than on the individual “context” of each lesson. So far we are quite content since the purpose of our classes and units are clear for both Ss and T. As sincere teachers, we believe that the fruits of the ChemCourse 2008 will become obvious for our Ss beyond the classroom and in due time. Final results will speak for themselves.



***Reflection on my lesson:***

One can say that our students were able to identify the different parts of an abstract. The first and the second activity were designed to provide learners with practice on the different parts of an abstract from a chemistry article. Besides, students have a set of chunks and/or phrases to recognize these parts (The aim of... It revealed... Therefore... and others). Next, students were provided with a handout to recognize the differences between quoting and paraphrasing. Students were able to recognize these differences and construct a definition of quoting. Students came up with elements like quotation marks, page number and author's name. I was very satisfied because students were communicating in English effectively. There was a moment in the task in which students "forgot" about the activity. They focused on communication and found different ways to convey meaning successfully. Both groups were exchanging information in a very natural way.

During the main task, we established a context/situation (students played the role of chemistry professors checking examples of quoting and source acknowledgement). I do believe students took advantage of such a situation (basically because of students' commitment when performing the main communicative task). Based on students' examples of quoting (posted on the blog), one can say that students really mastered this feature. Elements like quotation marks, page numbers, year of publication and others were included in the examples.

Due to time constraints, I did not have time to go over activity six. I think this was a productive lesson in the sense that students were able to identify the different parts of an

abstract, use quoting and acknowledge sources correctly. Besides, students were truly motivated when performing the main communicative task.

### **Reflection on my lesson:**

With lesson #0301 we started Unit #3. The topic of listening to lectures (monologues) was pointed out during our Needs Analysis as one of the macroskills our Ss used the most in their academic and professional life. In this sense, we are taking advantage not only of our Ss' background knowledge and previous experience, but also of the recycling of the reading strategies studied so far. As Dudley-Evans and St. John (1998), have pointed out, both reading and listening to monologues share quite a variety of microskills. Although I did not feel as inspired as in other classes, the lesson went smoothly and we had the surprise of having Ss performing the assigned tasks a lot faster than planned. This means that our objectives were achieved and that there was more room for other aspects that were going to be addressed in lesson #0302 as part of our Ss' preparation for the invited professors' lectures during next week.

The warm-up video turned out to be almost tantalizing for our Ss due to its silent, morbid nature (the effect of strong acids and alkalis on a wristwatch and two pig's trotters.) It provided, nevertheless, an exquisite opportunity to motivate our Ss to engage in a short but intense discussion. With this pre-task (within the bigger task cycle), Ss faced a mini-lecture of 12 minutes dealing with nuclear chemistry. Although our observing professor commented on the fact that Ss should listen with a linguistic purpose in mind, the task was basically strategy-centered on the vital issue of writing down main ideas and supporting ideas. Our professor suggested us to break down the video into shorter pieces for easier, faster digestion, and once again, for linguistic purposes. This was eventually addressed on lesson #0302 the next Wednesday. Our language focus for lesson #0301 was however, rather aimed at reviewing and building vocabulary, and reinforcing (as post-task correction) the pronunciation of the *-ed* morpheme and vowel reduction.

On the other hand, our professor insisted upon two important points. First, trying to foster equal participation of all our Ss. In other words, "neutralizing" those who are more fluent but less accurate (and who serve as a "questionable example") and at the same time, promoting the participation of our less fluent Ss. Second, she suggested us to "come down" in the sense of "seeing our class from the point of view of our less proficient Ss." This means that perhaps some of our activities and the pacing are designed and implemented with our most proficient Ss in mind. This we found to be a challenging but pertinent observation since as teachers we may tend to unjustly center our attention on some Ss that we consider more participative and enthusiastic in the classroom. By means of these two key points, we will be motivating all our Ss simultaneously. Another implication of this is the fact that our less proficient Ss may not feel frustrated sometimes, and actually will awake in them a productive feeling of achievement and inclusion.





***Reflection on my lesson:***

I would like to start by saying that I felt very pleased and motivated with this class in terms of the clarity of the cycle, the effectiveness of the main communicative task (linguistic behavior exhibited by students), the challenging input, the interaction (students to students and students to teacher) and the students' general performance (also my own).

The first activity was intended to raise awareness on note-taking and attending a lecture. It was interesting to notice that students were providing thought-provoking answers and comments. These questions were successful in the sense that they got students into the flow of the lesson. They did motivate students to participate. Discourse markers were also introduced during this lesson.

I would like to focus on the main communicative task. We went over some statements to express opinions and questions to ask for clarification. I strongly believe students were highly motivated when working with these expressions. They were able to establish a connection with the real world (work-related task). Students had the opportunity to practice the expressions in a controlled environment and received feedback before using them on their own (this was paramount to the success of the task). Next, students were supposed to go back to their notes from the lecture (previous exercise) to express opinions and ask for clarification. At this point, a student suggested to concentrate on a topic they mastered (instead on the one from the lecture). As they focused on the

topic they mastered (basically inorganic chemistry), students started to use the expressions in a very natural way. They were communicating effectively using the expressions. This was absolutely relevant for them (since they knew the topic intimately,

they did not have to focus so much on what they were saying. Students could concentrate instead on how they were saying things).

As a conclusion, I would like to emphasize on the fact that students' performance and my own were productive, indeed. Based on students' behavior, one can say that they were truly motivated and interested in the class. Besides, I was very pleased with students' general performance. Students were able to take notes in real time, recognize the relevance of discourse markers, and use expressions to give opinions and ask for clarification.

### **Reflection on my lesson:**

For this lesson we had the first participation of a guest speaker in our course. Professor Julio Mata presented a short lecture on the topic of biofuels and their production in Costa Rica. We structured the class as follows: the first 30 minutes were devoted to pre-task (brainstorming and schemata activation); review of useful vocabulary extracted from the actual lecture; and review of discourse markers and their utility, and the structures required to ask questions of a lecturer in order to clarify meaning. Then, during the 30-minute lecture (task), students had to take down notes, pay attention to the discourse markers used, and formulate two questions they would like to ask. Finally, after professor Mata answered their questions, we carried out a discussion where students had the chance of expressing their professional opinion regarding the topic and the experience of listening to a live lecture (post-task.) Despite a situation that happened before the class started with another professor who pretended to present his lecture the same day (he got confused and assumed he had the right to do as he pleased), every activity was implemented smoothly and successfully. Our students not only met our objectives for the day, but they also showed great motivation and a sincere interest in the lecture and its contents.

Besides, our observing professor was very pleased with the way we planned our class around the lecture in order to extract the maximum benefit from it. Our students had the chance of activating their schemata, preparing and reviewing vocabulary, and the target strategies and structures they were expected to apply during the task and post-task. If the lecture turned out to be an interesting source of linguistic and professional input for our Ss and on top of that it also provided a great stimulus for the general discussion, that came out as a truly realistic and communicative activity. Students were able to focus on linguistic aspects, strategies, and on offering a professional response where they applied other target structures. Our professor also considered that the way we managed the discussion allowed the students to stay focused on the task, since at the beginning of the conversation they showed momentary confusion regarding which of all the questions provided they should start with.

As suggestions, our professor considered pertinent to refrain from further speaking on our part once students understood instructions. Extending teacher talk can be tempting at times, but its purpose is only to point the students in the right direction. Nevertheless, due to the fact that the guest lecturer was the "star" of our class, our role as teachers receded into that of facilitators and hosts during the pre-task and task, and that of discussion directors during the post-task. Moreover, we were able to achieve the writing part of our class by assigning it as homework. In short, we were very satisfied with the results, and this satisfaction also showed on our students' faces.



***Reflection on my lesson:***

I would like to start by saying that I felt very satisfied with students' oral presentations in terms of their linguistic behavior and usage of relevant elements.

The first and the second activities were intended to provide students with significant hints when making an oral presentation. Next, students listened to an oral presentation on Fission Reaction. This oral presentation worked as a model for them. Basically we wanted students to identify the relevant elements previously studied. This activity was successful in the sense that students did identify several important elements in the oral presentation.

Then learners were asked to prepare a short oral presentation using the information they brought on a chemical process. Before making the presentations, students were given personalized feedback on the different elements of the presentation (especially attention getter, signal words, and subject-verb agreement errors). Next, learners made their oral presentations in front of the class. In general terms, the oral presentations were very productive. Elements like purpose, attention getter, knowledge of the topic, and signal words were successfully included in the oral presentations. Word-choice and subject-verb agreement errors were also present in the presentations, though. We plan to give students more personalized feedback.

As a conclusion, I would like to emphasize on the fact that students were able to recognize and use important elements (purpose, attention getter, interest, and signal words) when making a short oral presentation about a simple chemical process. Finally, I was pleased with students' production and performance. This was definitely a more student-centered class.



### **Reflection on my lesson:**

For this lesson we held our second live lecture with an invited professor from the School of Chemistry. Dealing with the topic of occupational safety, we structured our class around his lecture, providing first a brainstorming and schemata activation cycle with vocabulary warm-up. Then, after his presentation, he answered questions from the students. Then, a general discussion took place in order to extend the topic to the students' immediate reality. The lecture turned out to be quite interesting for both chemists and non-chemists alike: important issues regarding safety measures, using protective clothing, and organizing hazardous materials (even in our own homes) provided rich input. Our lecturer was quite fluent (English was his second language), and he was excellent at offering examples, re-stating, re-phrasing, and using vernacular expressions and idioms.

During the whole cycle our students were actively engaged and showed great mastery over the points of note-taking and asking for clarification. Finally, our class discussion reflected their true interest on safety and their concerns about the measures that needed to be taken within their own school in order to enforce safety procedures. We consider that our objectives for the class were clearly met by our Ss, providing us with a rewarding sense of achievement and evidencing progress and a clear systematic application of their listening strategies.

Our observing mentor was very satisfied with the way we planned and carried out our class. In particular, she found that Ss were quite competent on the target strategies and showed sincere interest on the topic and on the experience. She also was surprised by the fact that they seemed to forget they were taking part in an English-speaking activity, because they put aside their language anxiety when asking questions and sharing their professional opinions. Nevertheless, our teacher pointed out that during general discussions we should not allow small private discussions to arise, in order to keep all Ss focused on the main task and topic. These may become harmful distractions, impairing the continuous flow of the discussion. She also suggested us to make an inventory of our Ss' most common mistakes (grammatical mistakes and deficiencies) in order to classify them, analyze them, and provide useful feedback in the future.

In this sense, we need to work on our Ss' accuracy as a vital complement to their fluency. They, due to their current level of proficiency, need to be more precise and have a proper use of grammar that will guarantee they sound professional in their workplace. We must prevent the situation where potential employers may turn them down as unsuitable candidates for good positions simply because they show basic mistakes in grammar.



***Reflection on my lesson:***

For today's lesson, we had a guest speaker. He made an oral presentation on units, symbols, and notation. We have been working on relevant elements when making an oral presentation (attention getter, eye contact, signal words, interest, visual aids, knowledge of the topic, and closure). Today's presentation was meant to be a professional model for learners.

Besides, we introduced the concept of critical listening (Helgesen & Brown, 2007). I do believe students understood the importance of critical listening when attending a lecture/oral presentation in order to grasp meaning. Students were not only listening but thinking about what is behind what they are hearing. We strongly believe this metacognitive strategy is relevant for them in order to understand the content and the subtleties of a lecture/oral presentation. The learners had a checklist (also some questions) to consider and evaluate all these elements. This activity was intended to promote critical listening and speaking as well. One can certainly say that students benefited from critical listening. They found the strategy to be a useful one when attending and making oral presentations, indeed.

Next, students had the opportunity to express their opinions and ask questions for clarification about the content of the presentation. It was rewarding to listen to students when using the expressions studied so far in the course (also their own). Besides, their level of formality and attitude towards the presentation was a plus. One has to say that students felt very comfortable during this stage of the presentation. There was a point in which they "forgot" this was an English class. They were using the language to communicate and convey meaning effectively. We felt very pleased and satisfied.

As a conclusion, I would like to emphasize on the fact that students were able to recognize important elements, use predicting, recall keywords, apply critical listening, and express their opinion and ask for clarification when listening to a chemistry lecture.



### **Reflection on my lesson:**

With this lesson and this unit in particular, we aimed at the practice of oral presentations. In this way, our Ss could be able to apply all the organizational criteria that we had discussed in Unit #3 and that dealt with conferences and lectures: greetings, presenting main ideas and supporting details, attention-getters and organizational markers, and also some strategies such as rephrasing, summarizing, and asking and answering questions. In order to link Units #3 and #4 by means of content and strategies, we decided to analyze the last live lecture we had in class with a guest professor, so Ss could reflect on the lecture as critical listeners. Then, we would enrich this lesson by having Ss prepare short presentations where they needed to take into consideration precisely the criteria they had followed as listeners.

Therefore, after reviewing the studied criteria ("Hints for making oral presentations" handout), Ss had the chance of analyzing and criticizing Dr. Ogilvie's lecture from last week. Once this was accomplished and discussed, Ss watched a video about a chemistry experiment. Their task consisted in presenting this chemical process in an academically structured presentation. Ss also received written input that was used to activate schemata, practise necessary vocabulary, write notes, and prepare them for their pair work as extemporaneous lecturers.

Our observing mentor was very satisfied with the task cycle we designed for this lesson. The cycle of analysis-synthesis (as critical listeners first and as speakers later) proved out to be quite successful since our Ss' motivation was obvious in the sense that they perceived our activities to be meaningful, challenging, and useful. In addition, the pre-task allowed them to get ready in terms of vocabulary and content. For pronunciation and grammar issues, they had the chance of rehearsing their presentations having one of the instructors acting as audience/monitor with the objective of providing useful feedback before the actual task. Our professor, nevertheless, suggested us to develop a controlled practice as a means to have Ss focus on one or two strategies, as well as one or two criteria for presenting. According to her advice, this would benefit our Ss since it provided practice before production. In this sense, we were greatly pleased to confirm our pedagogical views that Task-Based Instruction can be very restrictive at times when the Presentation-Practice-Production (PPP) method can be more useful and versatile.

In general terms we found out that our Ss showed great confidence, a relaxed attitude, and in spite of discrete errors, they were able to perform in a professional and natural manner. Their preparation as critical listeners first and as organized lecturers later allowed them to contemplate and understand the process of academic oral communication from both points of view.





***Reflection on my lesson:***

Today's lesson consisted of a series of presentations related to chemical processes. The first activities were intended to activate schemata and provide students with a visual aid to support their presentations. The activation of key vocabulary was relevant. Students were able to use the vocabulary in a real and, at the same time, controlled environment.

Next, students were asked to prepare an oral presentation in which they had to explain a chemical process (each pair explained a different chemical process). Students were given time to practice what they actually had to say before getting engaged in the task. I truly believe students benefited from this mini-feedback session. They had the opportunity to correct their mistakes and improve their presentations before making them. We were very pleased and satisfied with students' general performance. Our students successfully incorporated elements like attention getter, eye contact, and rephrasing in the presentations.

As a conclusion, I would like to emphasize on the fact that students were able to recall keywords, apply critical listening, and make a short oral presentation about a chemical process.

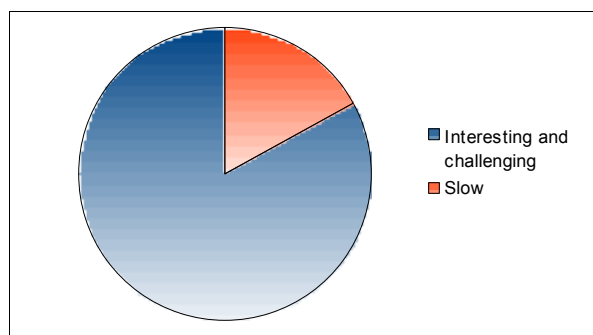
## Midterm Course Evaluation Results for the ChemCourse 2008

The Mid-course evaluation for the ChemCourse 2008 was applied on September 22<sup>nd</sup>, 2008. The evaluation form (see attachment) consisted of 10 questions, 7 close-ended questions (with multiple options), and three open-ended questions. The main aspects that we were interested in surveying were the students' perception about the class activities, the teachers' practice; the students' likes and dislikes; and the students' suggestions for the second part of the course. It also included two self-evaluation questions where students could express how much effort they had dedicated to the course, and how much they had learnt so far. This questionnaire was applied to a total population of six students who filled in the forms and handed them back to the instructors on September 24<sup>th</sup>.

### I. Results:

#### a. Close-ended questions:

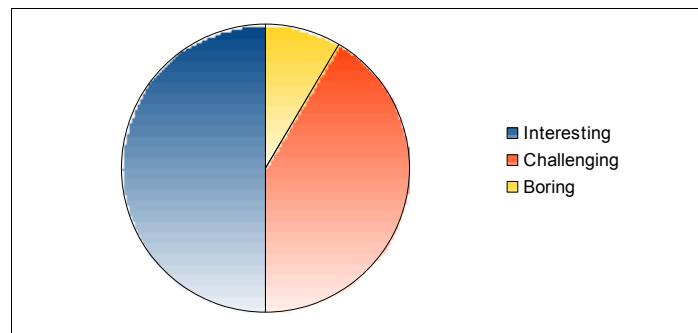
When asked about their general perception about the classes, 5 of them (83%) considered that classes were both “interesting and challenging”, whereas 1 student (17%) considered them as “slow.” This can be seen in Chart 1.



*Chart 1: How do you consider classes to be?*

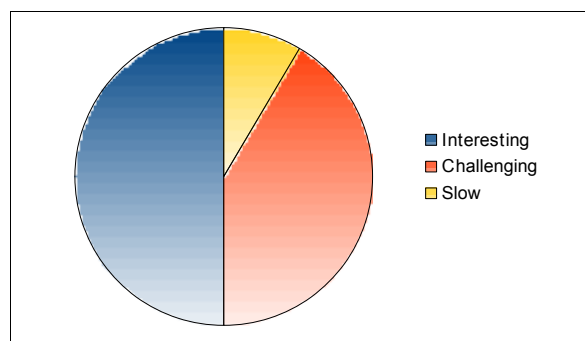
On question #2, students found class activities as “interesting” (100%), “demanding” (83%), and

“boring” (17%) These results can be seen in Chart 2.



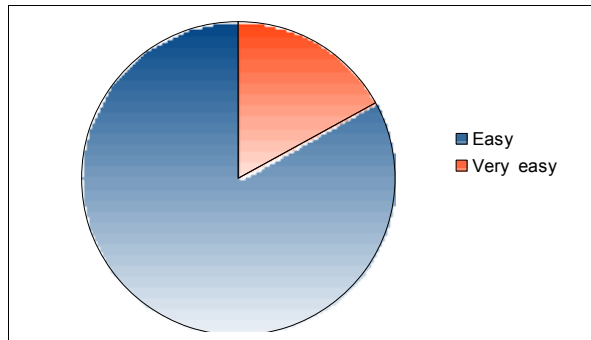
*Chart 2: How do you consider classroom activities? (relative percentages)*

This was closely related with question #3, where students considered that the instructors' way of teaching was “interesting” (100%), “demanding” (83%), and “slow” (17%). These results are summarized in Chart 3.



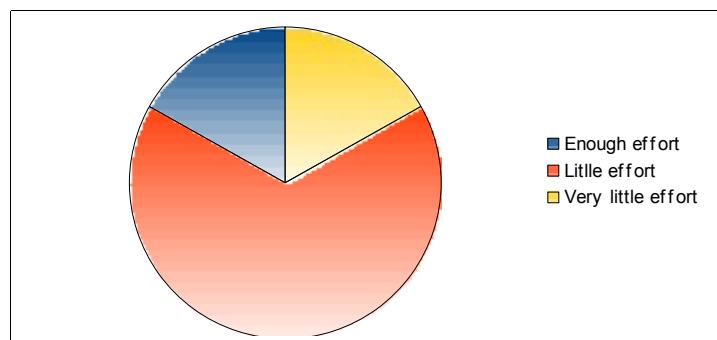
*Chart 3: How do you consider the instructors' way of teaching? (relative percentages)*

Finally, question #4 asked students for their perception about the difficulty of quizzes and exams applied in the course so far. Five students (83%) regarded them as “easy”, whereas one student (17%) said they were “very easy.” This is illustrated in Chart 4.



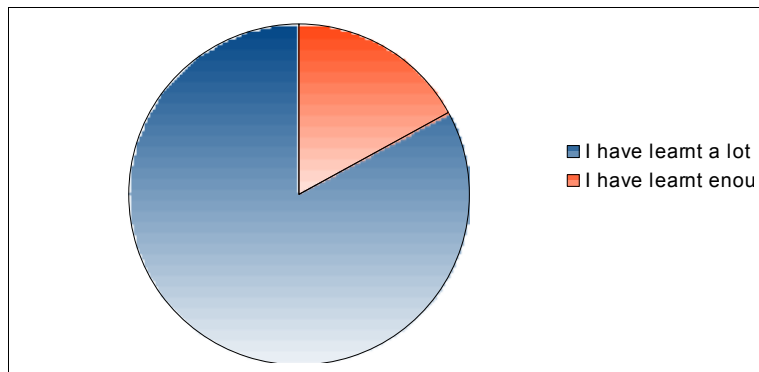
*Chart 4: How do you consider the quizzes and exams?*

On the other hand, the self-evaluation questions (#5 and #6) reflected an inversely proportional ratio between effort and learning. For question #5, 67% of students said that they had put “little effort” into the course, whereas 17% said that he had put “enough effort” (“bastante”), and 17%, “very little effort” so far. This is summarized in Chart 5:



*Chart 5: How much effort have you put into this course so far?*

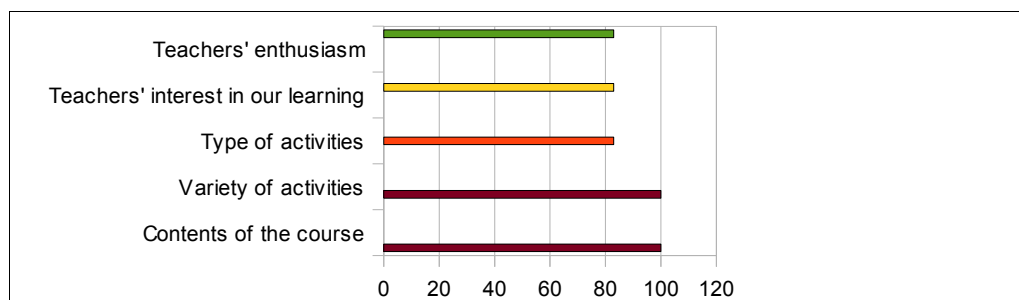
Finally, when asked on question #6 about how much they had learnt up to that point, 83% of students said that they had learnt “a lot”, whereas 17% said that he had learnt “enough” (“bastante.”) This is reflected in Chart 6:



*Chart 6: How much have you learnt in this course so far?*

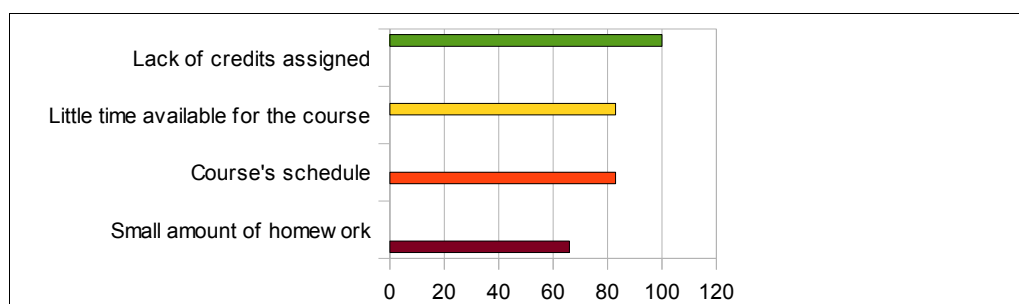
### **b. Open-ended questions:**

For our open-ended questions, we wanted students to give a sincere opinion regarding their likes and dislikes, as well as their concrete suggestions in order to make the course more meaningful and productive for them. In question #7, when asked about what they liked the most so far, students answered “the teachers' enthusiastic attitude” (83%), “the teachers' interest in our learning process” (83%), “the type of activities” (83%), “the variety of tasks and activities” (100%); and “the contents of the course” (100%). This is summarized in Chart 7.



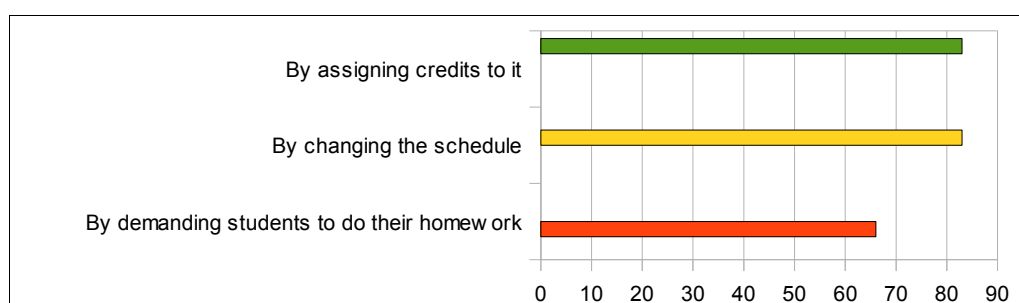
*Chart 7: What have you liked the most about the course so far? (relative percentages)*

In addition, in question #8 students were asked to say what they had liked the least so far during the course. The information they provided was the following, 100% mentioned “the lack of credits assigned to the course”; 83%, “the little time we can dedicate to the course”; 83%, “the course's schedules”; and 66%, “the small amount of homework.” This is shown on Chart 8.



*Chart 8: What have you liked the least about the course so far? (relative percentages)*

On question #9, students were asked to provide suggestions on how the course could become more productive and interesting. Students answered, “by changing the course's schedule” (83%); “by assigning credits to the course” (83%); “by demanding that students do their homework” (66%). This information is summarized in Chart 9.



*Chart 9: How can this course be more productive and interesting for you? (relative percentages)*

Finally, when students were required on question #10 to offer suggestions for other topics or activities to be analyzed and practised in class, their answers were, “practising how to write short articles” (83%); “discussing other aspects of grammar or pronunciation” (83%); “giving a professional opinion about an article “ (83%); “practising listening based on scientific newscasts” (66%); “making presentations every week (17%). Their feedback is illustrated in Chart 10.

## Final Course Evaluation Report for ChemCourse 2008

The final course evaluation for ChemCourse 2008 was applied on November 3<sup>rd</sup>, 2008. The evaluation form consisted of ten questions, seven close-ended questions (with multiple options), and four open-ended questions (please refer to addendum section for a copy). The main aspects that the ESP practitioners were interested in surveying were the students' perception about the class activities, the teachers' practice; the students' likes and dislikes; and the students' suggestions for a future course. It also included two self-evaluation questions where students could express how much effort they had dedicated to the course, and how much they had learnt during this course. This questionnaire was applied to a total population of six students who filled in the forms and handed them back to the instructors on November 10<sup>th</sup>.

### I. Results:

#### a. Close-ended questions:

When asked about their general perception about the classes, four of them (66%) considered that classes were “interesting”, whereas one student (17%) considered them as “slow”. Finally, one student considered the classes to be “demanding”. This can be seen in Chart 1.

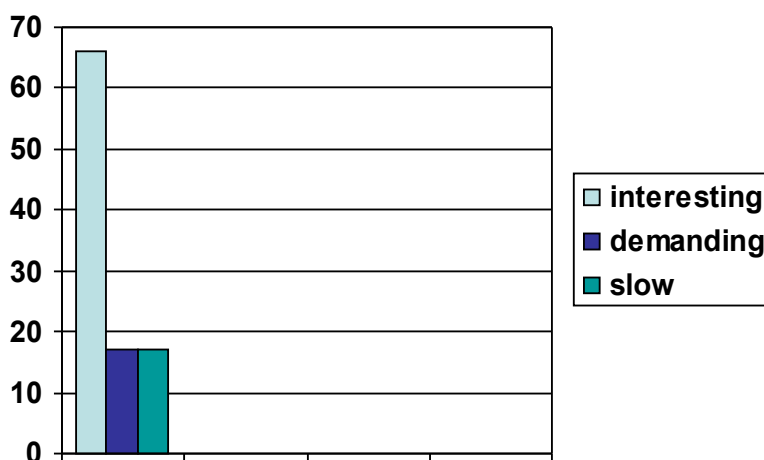
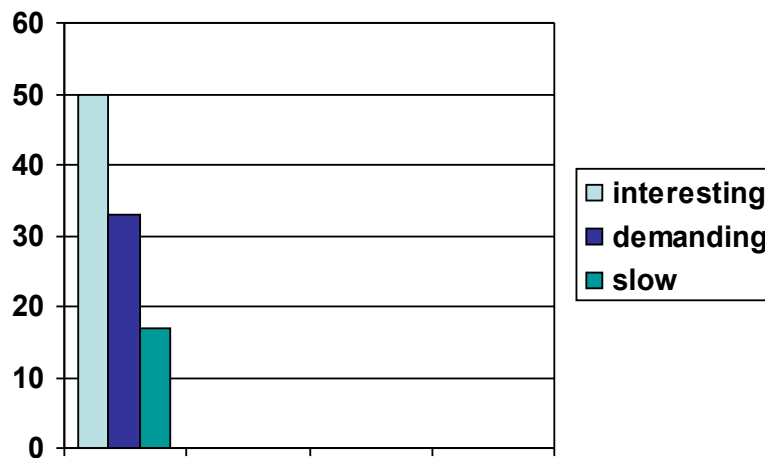


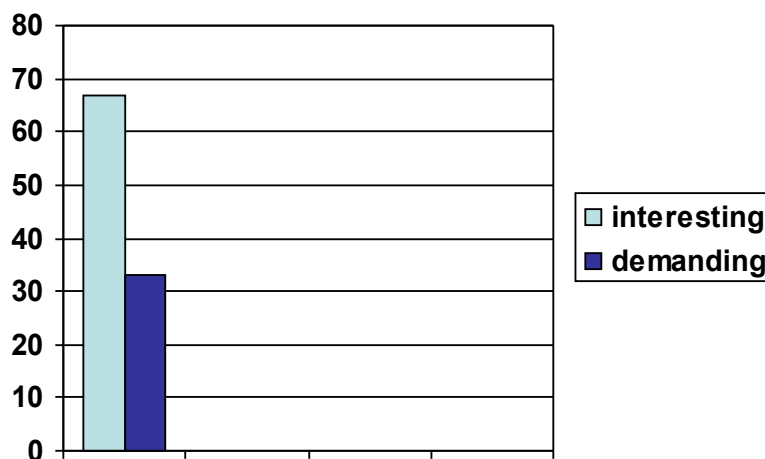
Chart #1: What's your opinion about our classes?

On question #2, three students found class activities as “interesting” (50%), “demanding” (33%), and “slow” (17%). These results can be seen in Chart 2.



*Chart #2: What's your opinion about the class activities?*

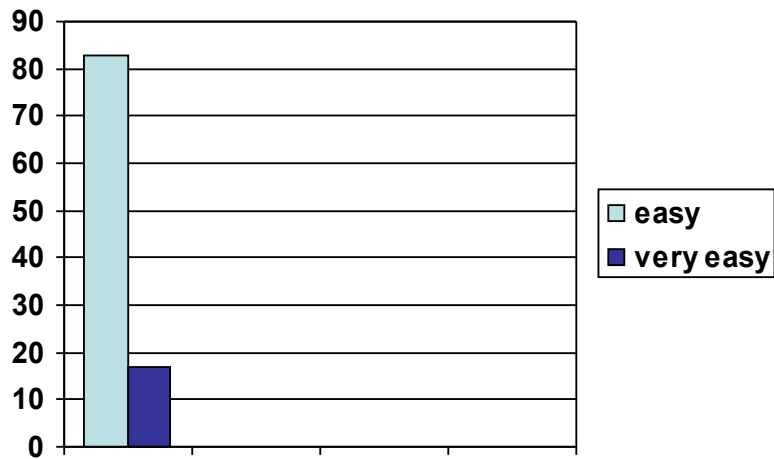
This was related to question #3, where four students considered that the instructors' way of teaching was “interesting” (67%) and “demanding” (33%). These results are summarized in Chart 3.



*Chart #3: What's your opinion about your instructors' way of teaching? (methodology)*

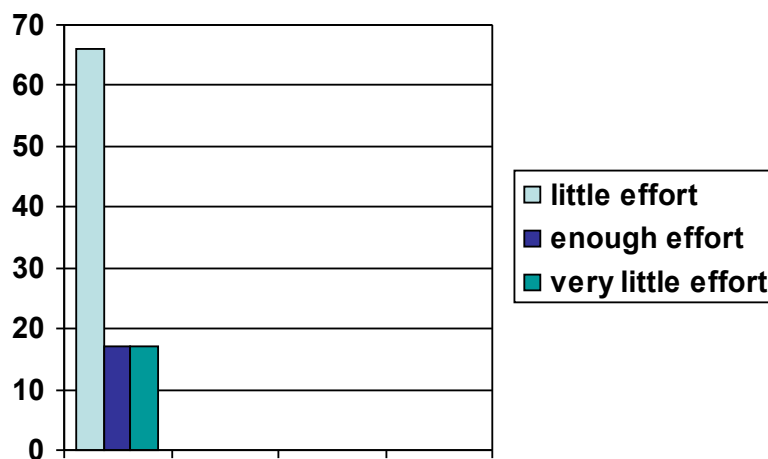
Next, question #4 asked students for their perception about the difficulty of quizzes and exams applied in the course so far. Five students (83%) regarded them as “easy”, whereas one student (17%) said they were “very easy.” This is illustrated in Chart 4.





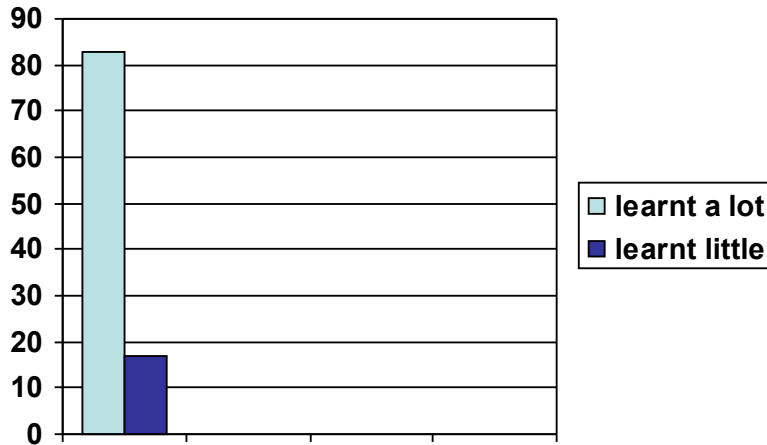
*Chart #4: How do you consider the quizzes and the exams?*

On the other hand, it was interesting to notice that the self-evaluation questions (#5 and #6) reflected an inversely proportional ratio between effort and learning. For question #5, four students (66%) said that they had put “little effort” into the course, whereas one student (17%) said that s/he had put “enough effort”, and one student (17%) said s/he had put “very little effort”. This is summarized in Chart 5:



*Chart #5: How much effort have you put into this course?*

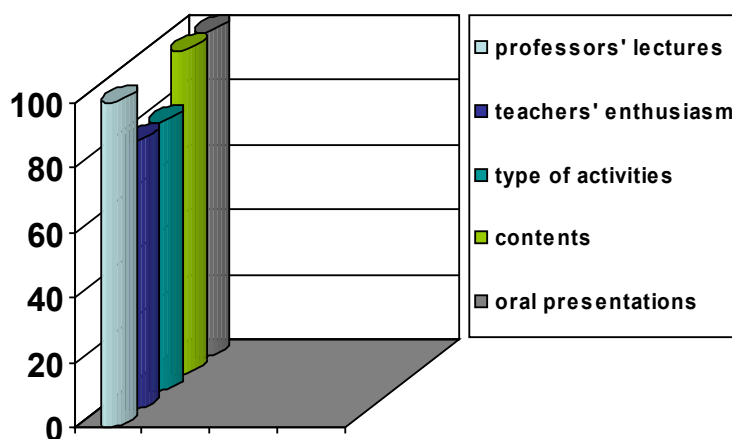
Finally, when asked on question #6 about how much they had learnt in this course, five students (83%) said that they had learnt “a lot”, whereas one student (17%) said that s/he had learnt “a little”. This is reflected in Chart 6:



*Chart #6: How much have you learnt in this course?*

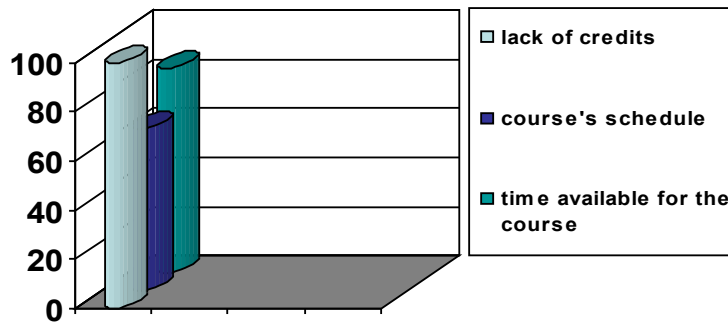
## **b. Open-ended questions:**

For our open-ended questions, the ESP practitioners basically wanted students to give a sincere opinion regarding their likes and dislikes, as well as their concrete suggestions in order to make the course more meaningful and productive for them. In question #7, when asked about what they liked the most about the course, six students mentioned “professors’ lectures” (100%), five students answered “the teachers' enthusiastic attitude” (83%), five students mentioned “the type of activities” (83%), six students answered “the contents of the course” (100%); and six students also mentioned “the oral presentations” (100%). This is summarized in Chart 7.



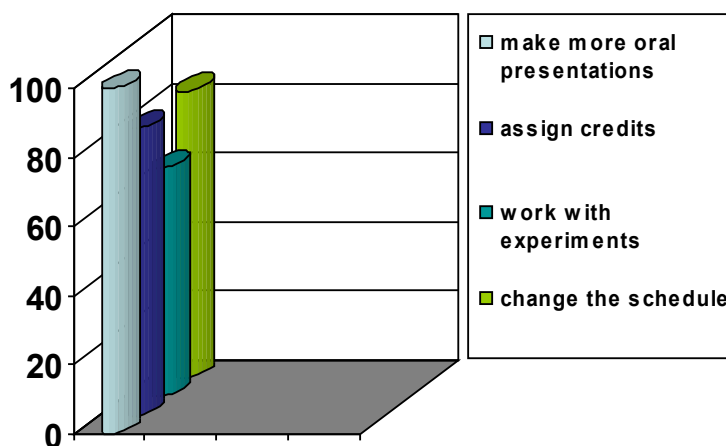
*Chart #7: What have you liked the most about the course? (relative percentages)*

Next, in question #8 students were asked to say what they had liked the least during the course. The information they provided was the following, six students (100%) mentioned “the lack of credits assigned to the course”, four students (83%) said “the course's schedules”, and five students (83%) answered “time available for the course”. This is shown on Chart 8.



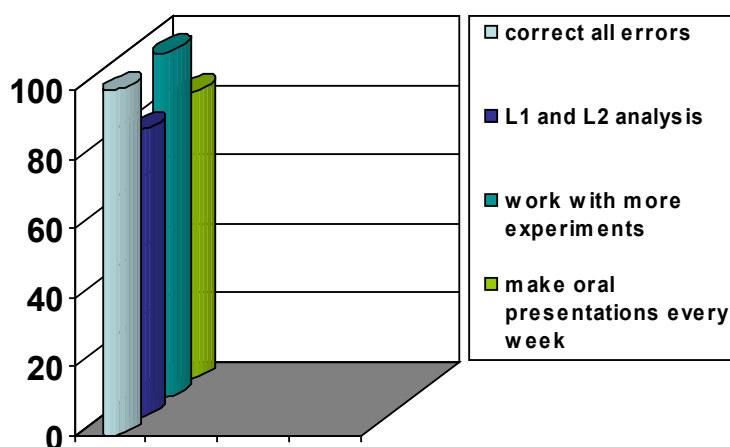
*Chart #8: What have you liked the least about the course? (relative percentages)*

On question #9, students were asked to provide suggestions on how the course could become more productive and interesting. Students answered, “by making more oral presentations” (100%); “by assigning credits to the course” (83%); “by working with experiments” (66%); and “by changing the course's schedule” (83%). This information is summarized in Chart 9.



*Chart #9: How can this course be more productive and interesting for you? (relative percentages)*

Finally, when students were required on question #10 to offer suggestions for other topics or activities to be analyzed and practised in class, their answers were, “correcting all errors” (100%); “analyzing English vs. Spanish” (83%); “working with more experiments” (100%); and “making oral presentations every week (83%). Their feedback is illustrated in Chart 10.



*Chart #10: Suggestions for other classroom activities and topics (relative percentages)*

## **II. Analysis of Data:**

### **Strengths and weaknesses:**

Based on the results of questions #1 and #2, one can say that the students have a very positive opinion about the course in terms of classes and classroom activities. Since the vast majority of them have defined them as "interesting" (66%) in question #1 and “interesting” (50%) in question #2, the Needs Analysis (NA) conducted during the last semester was quite precise in terms of contents, the type of classroom activities selected, and the level of exercises and pacing. Classroom pacing, on the other hand, can be also related to question #3, where students once again mostly found our way of teaching "interesting" (67%), and "demanding" (33%). The professors’ lectures and oral presentations were also reported as two of the most attractive features of the course in question #7 (100% each one). One can say that students were able to establish a real connection with the activities in the field of chemistry (work-related tasks).

For question #7, it was thought-provoking to notice that students did appreciate the oral presentations (100%). It was relevant for them to be able to make professional, oral presentations basically because this is a task they perform on a regular basis.

Furthermore, the contents of the course are considered among the preferred aspects of the course (100%). This information definitely means that the ESP practitioners have been able to “establish” and “keep up” with the students' interests, learning styles, MIs and classroom preferences as determined in our NA. This positive perception goes hand in hand with the practitioners' personality, level of energy and enthusiasm when teaching. On question #7, students considered the “teachers' enthusiasm” and “the type of activities” as two of the most positive aspects of the course (83% each feature).

On the other hand, the course's weaknesses were reported in question #8. Here, students defined as its least attractive features the “lack of credits assigned” (100%); the course's schedule (66%), and the little time they could dedicate to it (83%). This indicates that although the students have found the course to be quite relevant, interesting and useful, the fact that ChemCourse 2008 is not “a real course” in terms of academic credits makes it quite unattractive and decreases both the time and effort students may dedicate to it. This can be confirmed by students' answers to question #5, where they mentioned to have put “little effort” (66%) and “very little effort” (17%) into the course.

Another major inconvenience is the course's schedule (66%), which was one of the students' main concerns since last semester when our NA took place. This was also another important cause of desertion, due to the fact that almost 50% of our original population could not register the course because its schedule clashed with one of their major's courses. Thus, if students had to choose between registering a course that was vital for their major and one that although interesting meant no concrete academic benefits (besides learning, that is), the choice was obvious, especially for students who were about to graduate (third and fourth year students). This is a very serious aspect because the chronic problem of attendance and desertion has its deep roots in this situation. This applies not only to our course but to our colleagues' practicum as well.

### III. Conclusions:

Now that ChemCourse 2008 is about to be over, some conclusions are considered. These can be summarized as follows.

- The ESP practitioners consider that the vast majority of the goals were met, in the sense of providing a course centered on both academic and professional strategies, where the four macro skills were addressed: speaking and listening (dialogues); reading articles; writing summaries and abstracts; listening to monologues (conferences and lectures), and speaking for an audience (making short presentations).
- In addition, the ESP practitioners have tried to provide students with feedback centered on accuracy rather than fluency, due to their current level of proficiency. This feedback has been focused on pronunciation of aspects such as vowel reduction and the *-ed* morpheme. Once again, it is important to add that ChemCourse 2008 is a skill and strategy-based course more than a language-centered ESP course. This is supported in the students' positive attitude towards the course and the fact that 83% reported to have learnt “a lot” during the course (chart #6).
- There were several limitations during the course. One can certainly say that low attendance, high desertion rate, and the lack of concrete rewards for the students were the most important ones. If there is no academic reward in an academic environment, absenteeism, desertion, and low homework compliance will be constant problems. As Dudley-Evans and St. John (1998) have mentioned,

*In courses built on a credit system it is essential that the English course carries credit. If it does not, or if the English class always take place at a bad time of the day, it will not have status in the eyes of students and motivation will fall. (p.38)*

- It is true, however, that students were highly motivated during the course and that lessons were dynamic for them. They did seem to enjoy and learn a lot during the course (Chart #1, #2, #3, and #6).

## Teaching Beliefs for the ESP classroom

One of the most important approaches to Foreign Language teaching is Content-Based Instruction (CBI). According to Richards and Rogers (2001), in CBI “teaching is organized around the content or information that students will require, rather than around a linguistic or other type of syllabus” (p.204). In other words, CBI focuses on the subject matter (content) that is communicated through language rather than focusing on language itself. This is deeply rooted in the principles of Communicative Language Teaching, that appeared in the 1980's (Idem.)

English for Specific Purposes (ESP), on the other hand, has developed as one of the most important branches of CBI. (Idem, p.207). As such, ESP shares some important theoretical aspects of language learning theory that have been addressed in this course. These principles are in fact the beliefs upheld by us. Therefore, it is easier to mention the ESP tenets that we find particularly relevant and useful, and that we have implemented in the course design and later in our classes. These principles are

1. The course's contents, materials, and methods should respond to the students' needs
2. Contents must be in context and meaningful to be learned
3. Students learn autonomously and cooperatively
4. The teacher is just an assistant to their learning (facilitator)
5. Motivation and other socioaffective variables have a key role in the classroom

### **1. The course's contents, materials, and methods should respond to the students' needs**

According to Duddley-Evans and St. John (1998), one of the absolute characteristics of ESP is that it is designed to meet the specific needs of the learners. (p.4) Since these needs are determined and analyzed previously by means of a needs analysis investigation, the contents, materials, methodologies, and class activities do respond specifically to the students' needs and interests. In this sense, it is clear that the essence of ESP-course design is based on the students' needs.

As a complement, we may add the other absolute characteristic mentioned by these authors: “ESP makes use of the underlying methodology and activities of the discipline it serves.” (Idem.) For this, classes are observed as part of the needs analysis; authentic materials are collected and studied; and the professional or academic culture of the population is always taken into

consideration when planning classes and activities.

## **2. Contents must be in context and meaningful to be learned**

As an extension of the previous point, ESP requires that language be taught in context, in this case, in the context of the specific field addressed: “in any teaching activity, whether its aim is to teach language or skills, it is presented in a context” (Op.Cit., p.11). Duddley-Evans and St. John proceed then to explain the difference between the carrier content (the field-related topic. e.g., chemical reactions), and the real content (the language structures needed to explain or convey the thematic information.) This clearly reflects the Content-Based nature of language teaching in ESP.

There is in addition, a social context. Students are part of a professional community as workers, researchers, teachers, or students. Because of this, all materials, tasks, activities, and tests should be presented in a social context relevant and familiar to students. In other words, ESP teachers need to adapt to the discipline's “ways” in order to keep the students' interest and to emphasize the relevance of the course.

## **3. Students learn autonomously and cooperatively**

Because learning is a cooperative process between teacher and students, and between the students themselves, autonomy and responsibility ought to be present at all times. In other words, students are the agents of their own learning (Von Glaserfeld, 1989). Based on our own experience, both teaching and learning account for a 50% of the process each. Thus, no matter how hard an instructor may try to help their students to learn, if they do not collaborate and put effort into it, learning is clearly doomed to failure. In Cook's words (2001), “Poor students are those who depend most on the teacher and are least able to fend for themselves. The students must be encouraged to develop independence inside and outside the classroom.” Inability to learn cannot then be blamed on the instructor exclusively but also on the students' responsibility to achieve learning. This takes us to our next point, the teacher's role.

Within the context of Social Constructivism, learning is an active, social process. Inside the classroom this interaction takes place between the students and the professor and among the students as peers. “Learners compare their vision of the truth with that of the instructor and fellow students in order to get a new, socially tested version of the truth.” (Kukla, 2000). As a result, out of this continuous process of comparison and contrast, knowledge can be constructed.



#### **4. The teacher is just an assistant to their learning (facilitator)**

Not only the students but also the instructor learn in the classroom. Vygotsky (1978, tr.) summarizes it by stating that learning is a social and practical process (Social Constructivism). The theory of Social Constructivism, and our own experience support our belief that the teacher is only an assistant to the students' learning process. Teachers need to adapt to their new role as facilitators and not as traditional teachers (Bauersfeld, 1995.) This facilitator will maintain a flowing communication with the students (Rhodes and Bellamy, 1999), working from the back, and not lecturing as the conservative teaching styles tend to do.

In ESP classes, the teacher should as well draw on the students' knowledge, keeping in mind that they are the experts in the carrier content. This helps to “generate genuine communication in the classroom” (Op.cit., p.13) Furthermore, these authors enumerate other roles of the ESP teacher that we consider very important: classroom organizer, language and communication consultant, course designer, material adapter, and even researcher (Op. Cit, pp.14-16).

#### **5. Motivation and other socioaffective variables have a key role in the classroom**

According to Cook (2001), “motivation is probably the interest that something generates in the students... [It has] been used to refer to long-term stable attitudes in the students' minds.” Gardner (1972, 1985) describes two types of motivation: integrative (interest in the culture itself,) or instrumental (L2 as a means to other ends.) Independently of what kind of motivation students manifest, the teacher's role is to generate and maintain the learners' motivation for as long as possible. Motivation is “strongly dependent on learner’s confidence in his or her potential for learning.” (Von Glaserfeld, 1989.) This means the teacher must create an environment of tolerance, respect, and confidence in the classroom.

In the particular case of ESP, motivation may be instrumental: a job promotion, better salary, a scholarship, social prestige, etc. However, we as teachers must not take this motivation for granted. Indeed, even when dealing with specialized literature in their field, students might feel bored or uninterested in a particular text or activity. Once again, if we as teachers don't neglect the students' necessities, lacks, and wants, as determined by the needs analysis, we can keep our students motivated in order to cope with the challenges and activities inside and outside the classroom.

Another way of nurturing the students' interest and thus their motivation is by working on tasks that they find relevant. Using the appropriate context and authentic materials, for example, will enhance the students' interest by making activities meaningful to them. This relates to

Vygotsky's Zone of Proximal Development and scaffolding, and even Krashen's "i + 1", in the sense that the learning experience has to take place within the realistic setting and range of the learner's abilities, but remaining challenging enough. In the classroom this consists of adapting, improving, revising, and creating materials and activities that can be meaningful to the learners by relating or recreating their immediate professional, academic, and social reality.

**As a conclusion:**

Learning a second language in the ESP classroom demands a constant feedback relationship between students and teachers. Teachers must consider the students' needs and interests as they were established by the original needs analysis. Based on that, all materials, activities, task, and assessment must cater for these aspects and the students' professional or academic culture. Such a collaborative effort implies an appropriate classroom atmosphere that will foster motivation and interest. As a facilitator or language consultant, the teacher also has to plan the course in order to teach the real content by means of a carrier content. That is, all language content will be taught in context. Relevance and meaningfulness will result from these combination of factors. In addition, students must become aware of their own responsibility as autonomous learners inside the classroom and as part of their professional community. Success or failure of the ESP course will depend on the joint effort of all actors and stakeholders involved in the process.

## Assessment and evaluation in the ESP classroom

Based on the views expressed by Hutchinson and Waters (1987), Nunan and Lamb (1996), and Dudley-Evans and St. John (1998) regarding assessment in the ESP classroom, in addition to our personal beliefs and experience as teachers, we have come to the following

### I. Ten Commandments for Assessment and Evaluation:

- 1- *Assessment should relate to objectives*: Teachers should evaluate what they intended to cover as it was stated on the goals and objectives during the course/lesson planning.
- 2- *Assessment should reflect what was studied in class (achievement test: contents, structures)*: otherwise, assessment loses its authenticity and becomes useless to determine the students' progress.
- 3- *Assessment should reflect the tasks carried out in class (proficiency test)*: as part of ESP, assessment based on task allows to determine the students' current level of proficiency and ability to perform those tasks.
- 4- *Assessment should not evaluate carrier-content matter*: as part of Content-Based Instruction, in ESP subject matter is used as a vehicle for the true content of the course, that is, language. Thus, language itself is what must be assessed.
- 5- *Evaluation should be continuous during the course*: assessment and evaluation help the teacher know what is contributing to learning and what is not. In that sense, assessment should be done on a daily basis (either formally or informally. See below.)
- 6- *Assessment should be formal (tests, quizzes) and informal (monitoring)*: not only quizzes and tests are ways to assess learning. Monitoring, questions, and observation allow the teacher to assess and evaluate the students' progress, too.
- 7- *Formal assessment should be carried out mid-way through each unit and at the end of it*: for the

continuity of assessment, tests and informal evaluation need to be done before the unit is completed (achievement tests), and after the unit is covered (proficiency test for target tasks.)

8- *Assessment should allow teacher and student evaluation (peer and self-evaluation):* the process of learning and developing autonomy, implies that students must assume responsibility for their own and their classmates' learning. This is achieved by self and peer evaluation.

9- *Assessment should evaluate the macro-skill in question:* all macro skills should be assessed independently in order to determine the students' progress in that particular skill.(e.g., a reading test should evaluate reading and not writing, although other macro skills may be used during the test.)

10- *Assessment should bring positive washback:* a vital role of assessment and evaluation is motivation. Students need to learn from their mistakes and need to be aware of both their strong and weak points in order to improve. A sense of progress and encouragement promotes motivation and learning.

## **II. Teacher accountability:**

One of the basic tenets of ESP is that the course and teaching must respond to the learners' needs. In that sense ESP instructors have to be accountable to the several stake-holders who take part in the ESP course design and implementation.

1- *Our students:* they are the main reason of the course. Planning, teaching, and evaluation should refer to their needs and interests and focus on their learning.

2- *Chemistry professors and School Director:* As our “hosts”, they become one of the most important elements in the process. As ESP instructors, we correspond their courtesy by attending also their needs and by reporting the students' progress to them. Our final evaluation will be reported to them at the end of the course.

3- *Ourselves:* as novel ESP teachers, our commitment to the teaching and learning process implies following our beliefs and teaching methodology. In that sense, being honest to ourselves and doing our best effort is our role as ESP teachers. We are also learners, not only our students.

### **III. Aspects to be assessed and assessment calendar:**

- a. *Mid-unit quizzes*: skills, structures, basic useful vocabulary (achievement test).

These will be applied during weeks #2 or #3 of each Unit (one per unit).

- b. *End-of-unit quizzes*: proficiency in carrying out the target task (includes what was evaluated in mid-unit quizzes).

These will be applied during weeks #4 or #5 of each Unit (one per unit).

- c. *Final project: final presentation project where students select one of the main tasks developed in each Unit (this presentation will be recorded in video.)*

These will take place during the last week of each Unit (weeks #4, #8, #12, and #16)

### **IV. Evaluation of the Course:**

End-of-Unit quizzes	40% (at least four of them)
Mid-unit quizzes	20% (at least four)
Final project	20%
Class participation	15%
Attendance	5%

Note: a grade of 70 is the passing grade.

### **V. Other Instruments for Evaluation:**

- a. *Course evaluation questionnaire*: to show how well the course is fulfilling students' needs.

Two course evaluations will be administered, the first one during week #8 and the second one during week #16.

b. *Teacher self-evaluation questionnaire*: to raise the ESP practitioners' awareness regarding their performance and development. These will complement the Supervisors' feedback.

Two teacher self-evaluations will be administered, the first one during week #8 and the second one during week #16.

c. *Student self-evaluation questionnaire*: to help students raise their awareness in regards to their participation and effort during the course.

This will be applied during the last week of classes: once classes are over but before final projects are presented.

## **VI. Feedback philosophy and practice:**

In relation to the way feedback should be given to students in our future ESP course, we have summarized the following aspects:

a. *Feedback should be given in class* (orally, individually, in pairs, groups, or whole class during and after tasks as part of monitoring and scaffolding.)

b. *Feedback should be given after tests* (in personal and public but anonymous way. See d. and e. below.)

c. *In class, feedback can be oral and personalized* (on-the-spot corrections. e.g., grammar or pronunciation during the students' performances.)

d. *The group's recurrent mistakes can be noted down and analyzed in a brief feedback session at the end of the task* (post-task) *on the board for class discussion and peer correction.*

e. *After quizzes or tests, the teacher will provide individual feedback on the written tests if necessary or required.* If this is not the case, the teacher will go over the test with the group to give correct answers in the following class session. In addition, the teacher will summarize the most representative or relevant mistakes (related to target structures or contents) to analyze them on the

board (just like in d. above.)

f. *Feedback can be overt or covert* (depending on the students' proficiency level, motivation, self-esteem, learning styles.) Some students cope with one type better than the other and the teacher should keep that in mind.

g. *The first day of classes, the teacher will ask the students how they prefer to be corrected* (overt versus covert correction; immediate versus delayed correction; personal versus general feedback.)

h. *In addition to point g., all feedback and correction should be done carefully in order to avoid anxiety on the students' behalf.* Not all students take error correction in the same way and the teacher should be careful in that respect to avoid uncomfortable situations.

## **VI. Instruments to be used for assessment and evaluation:**

Based on their feasibility and their practicability of application and marking, these are the methods that will be used to assess students and to obtain (and provide) feedback:

1. *Tests* (both written and oral tests for proficiency and achievement assessment.)
2. *Whole-group discussion* (to gather their feedback after a task or test, or at the end of each unit and the course itself.)
3. *Questionnaires* (to gather the students' feedback as an end-of-course evaluation. This can be anonymous.)

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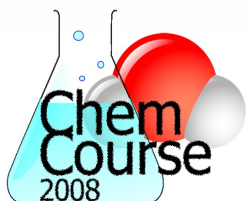


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English for Chemistry Students

UNIVERSIDAD DE COSTA RICA  
Escuela de Lenguas Modernas  
Escuela de Química

## **ChemCourse 2008: English for Chemistry Students**

Agosto-Noviembre 2008: L y M, 5:00 a 7:00pm - Aulas: QU-214 y QU-215  
respectivamente

**Instructores: Olmedo Bula - Jenaro Díaz-Ducca**

**Coordinadora del área de Química: Prof. G. L.**

<http://www.chemcourseucr.com> -- [chemcourseucr@yahoo.com](mailto:chemcourseucr@yahoo.com)

### **PERFIL DEL CURSO / II-2008**

#### **I. DESCRIPCIÓN**

ChemCourse 2008: English for Chemistry Students es un curso piloto de inglés basado en necesidades específicas (ESP) de estudiantes de química y futuros químicos de la Escuela de Química de la Universidad de Costa Rica. Este curso se impartirá durante un semestre, cuatro horas a la semana.

**El objetivo principal de este curso es proveer al estudiante con las herramientas necesarias para poder comunicarse efectivamente en inglés de acuerdo con sus capacidades en el contexto profesional y académico. \***

\* Este curso es un proyecto de graduación para la Maestría Profesional en Enseñanza del Inglés como Lengua Extranjera (TESOL), y por lo tanto **NO TIENE CRÉDITOS ASIGNADOS**. Sin embargo, se están realizando las gestiones con la Escuela de Lenguas Modernas y la Escuela de Química para empezar a impartirlo regularmente a partir del 2009 como parte del Programa del Bachillerato en Química.

#### **II. METAS**

Ayudar a los estudiantes a:

1. Entablar conversaciones formales con clientes para intercambiar información relacionada con productos y servicios.
2. Leer literatura especializada para usarla en diferentes proyectos.
3. Aplicar estrategias de escucha para entender charlas en una conferencia o clase.
4. Hacer presentaciones orales cortas sobre productos y servicios.

5. Escribir mensajes electrónicos a colegas y clientes relacionados con intereses profesionales, productos y servicios.

### III. OBJETIVOS GENERALES

Al finalizar el semestre los estudiantes serán capaces de:

1. Aplicar diferentes estrategias al hablar con clientes.
2. Usar el vocabulario adecuado para intercambiar información sobre productos y servicios.
3. Extraer las ideas principales de literatura especializada.
4. Discutir las ideas principales con un colega.
5. Utilizar técnicas de escucha activa durante una charla o conferencia.
6. Resumir las ideas principales de una charla.
7. Utilizar las estrategias adecuadas para hacer presentaciones cortas sobre un producto, procedimiento o servicio.
8. Utilizar el vocabulario y las expresiones adecuadas para intercambiar información acerca de productos, servicios e intereses profesionales en forma de mensajes electrónicos.

### IV. CONTENIDOS

1. Tiempos verbales presente simple, presente progresivo, futuro simple, pasado simple, pasado perfecto.
2. Voz pasiva vrs. Voz activa
3. Saludos, despedidas, preguntas sencillas afirmativas o negativas (Y/N questions), y preguntas con "Wh".
4. Números, fechas, precios, descripciones de cantidad, dimensiones y peso.
5. Auxiliares de modo (modal auxiliaries) tales como should, may, can, could, must, will, etc.
6. Descripciones de tamaños, colores, formas, materiales, etc.
7. Maneras de expresar acuerdo, desacuerdo.
8. Técnicas comprobar la comprensión de un interlocutor y expresar opiniones profesionales.
9. Adverbios de orden y procedimiento: first, second, then, next, last, finally, etc.
10. Técnicas generales para conversar telefónicamente, entender artículos y textos, escribir bibliografías, tomar notas durante una conferencia, hacer presentaciones cortas, escribir correos electrónicos.

### V. METODOLOGÍA

El curso se desarrollará desde el enfoque de tareas (Task-Based Approach), por lo que **los contenidos y las clases se centrarán en el desarrollo de actividades muy similares a las que realizan los químicos en la vida real**, tanto en los campos académico como profesional.

Dado que se trata de un curso de Inglés para Fines Específicos (ESP), **la experiencia, conocimiento, participación, aportes y la motivación de los estudiantes tendrán un papel fundamental** para enriquecer las lecciones y mantener una perspectiva centrada en el campo de la química. Durante las

clases los estudiantes también realizarán actividades de escucha, lectura, conversación, y análisis de textos y materiales auténticos, además de prácticas de laboratorio de cómputo, visitas guiadas, presentaciones cortas sobre procesos, procedimientos, y otros temas, etc.

## VI. EVALUACIÓN

Debido a los requerimientos de las Escuelas de Lenguas y de Química, **la asistencia a este curso será obligatoria. La nota mínima para aprobar el curso es de 70%.**

Aparte de la asistencia y la participación en clase, se tomarán en cuenta un Proyecto Final, además de Quices Parciales y Quices Finales, de la manera siguiente:

Quices Finales	40% (mínimo cuatro)
Quices Parciales	20% (mínimo cuatro)
Proyecto Final	20%
Participación	15%
Asistencia	5%

### Notas:

- Se le ruega a [I@s](#) estudiantes ser puntuales, así como abstenerse de utilizar el teléfono celular durante las clases, por lo que se les ruega apagarlo antes de entrar al aula.
- Para gastos de fotocopias y otros materiales, se les estará solicitando su colaboración oportunamente.

*iMuchas gracias por ayudarnos para que el ChemCourse 2008  
sea un éxito!*

*iSus sugerencias son siempre bienvenidas!*

## **A Few Final Words:**

### **What I Have Learned About Teaching the Four Macroskills, by J.D.D.**

#### **a. Speaking:**

Students need clearly a topic to speak about. If there is no content, there can be no production. Good input, such as reading, or listening is also mandatory. This way, you integrate other skills and activate schemata at once. Model pronunciation for the key vocabulary and useful phrases. Such phrases are always necessary: you may even need to teach them several times before students start using them frequently. Keep this vocabulary and gambits at hand. Maintain students focused on the task, give them a time to rehearse before facing the real audience. Your feedback is very important at this point. You may correct them overtly or covertly, during the task or during the post task. Feedback and correction can be also provided as self and peer correction. All feedback is beneficial for all students alike. Just try to make it general and anonymous. Students will appreciate your interest and effort in this sense.

#### **b. Listening:**

Activate key vocabulary first: students need to recognize a word in an audio text by knowing how it is pronounced in advance. Reading, speaking, recalling, or watching a picture can be very helpful to activate schemata. You may need to repeat the audio text for them to extract the necessary information or meaning. For this, you can use pair or group work to provide scaffolding. Remember that if students work together, they can understand practically the whole text (or achieve the objectives set) given enough preparation and at least two repetitions. If possible, use listening as input for communicative activities too, not just as listening per se. Remind the students that they do not need to understand every single word in order to grasp the meaning of an audio text (just like in their mother tongue.)

#### **c. Reading:**

Teach reading strategies from both top-down and bottom-up approaches. This not only makes students more resourceful, but also matches the different learning styles. Different strategies can be applied isolated or combined to different texts in different circumstances. As long as students keep in mind the repertoire of strategies at their disposal, they will feel confident and will learn to be

independent from the dictionary. Meaning can be constructed from the text by its context (reading in pairs provides scaffolding too). Therefore, understanding every single word in a text is not vital in order to extract its gist or main ideas. Teach students that a text can be broken down into small sections if necessary in order to make the reading task easier and faster. Reading and writing should go hand in hand: one complements the other since students learn to see a text from both points of view, the writer's and the reader's.

#### **d. Writing:**

Remind students that this is the most difficult macroskill to master of the four, so it demands more time and effort. Writing can be both a process and a product: products cannot be obtained if they have not been carefully prepared in advance. Encourage your students to write, and to apply the reading strategies in inverse order so they can construct a text the same way they deconstruct it: meaning can be encoded the same way it is decoded. Writing requires habit too, so continuous practice and focused feedback is always welcome and useful. Whenever possible, try to combine writing with listening or speaking, so it is seen as a "necessary" skill that complements the other, and not an isolated exhausting exercise. Teaching writing requires a lot of patience and perseverance from both the students and the teacher alike.





**JENARO DÍAZ-DUCCA AND OLMEDO BULA VILLALOBOS, 2008**

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